

THER is today a t alway has been the safest most convenient and most economical a esthetic fire og cal use

Ether Sq Tob the Sta da d A esthet c Fiher f the world is made only in the Squibb Labor tories by the process devised by Dr E R Sq bb and n stillf in ented by him

The Squibb Process produces a either the bet that can be made for to the so the so may year, d g h ch the 5g bb Eth e has bee used ha proced Te so II am at \$50 ub Ethe who popely

The sn il am nt f Squ bl Ethe whe p ope ly admin tered n cess t f an esthes a r nders it the m st econ muesl ethe

For the comf re a d the efty of you prent and yo rown satisfact set prih rog Sq bbs Ether and bef re using se that the seal age print ct

ERSquibb & Sons New York



n orld is made only to the Squibb Laborator of by the process de ed by Dr E. R. Squibb and in Halls invented by h m

The Sq the Process p d cer in ether the bet that earthe made for earth so a the se entry year, diff g in the figure between used his e grow d

The stall are not f Squ bb Fiber when properly administ red necessar for an another a render the review on much either

For the comfort and the safety of your patient and your not set sets a must upon having Ego bb a Ether and before u ing see if a the a ting cap i intact

We'le for Dr. Fire so have a finite in The grant last and will be lightly to maker of the modern of the modern of the modern of the fire so a so

E R SQUIBB & SONS NEW YORK

Souibb



Physicians and

P tuitary Legald (Armour) a pure solution of Posterior Printiary active printipl tandardized physiologically opportunity of the printiple of t

t ril Catgut Ligatures Piala Chromic, fodured l'ong, smooth supple made from lambs intestine fectel de ce bet ers for surgless purpass. Noth as better à be manufactured f on catgu with monther 4-6-augus

Sup a radin Solution 1 1000 Astrongent and bemontatic A stable water a liter son irritating preparation of the inject homostest and present principle of depreernal both ance, throat for fever chemical present her S a se-

THYROIDS Ponder 1/th, 1/4 1/2 I nd 1 grain



Parathyrol
Pordur \$ 1/1
1/1 grain
blo



ARMOUR AND COMPANY-CHICAGO

NOURISHING FOOD DRINK FOR SURGICAL PATIENTS



The ORIGINAL-Avoid Instations

The flavor of Horick's Malted Milk is very appetizing to surgical convalescents and its case of assimilation enables them to appropriate its nourishing food value

> Write for liter tu on its surgical uses and advantag s. Samples prepaid.

HORLICK'S MALTED MILK CO

no of by R. P. Donnelley & Sons Co. 1 Ch. age, Ill. no. U S. A.

Complete rsepsis possible with Castle Sterilizers

Mn s rg c l ases and som treatment wo k m thee ducted with complit a p s

I the possible with jo present offic equip me t? M tan stell will stell but a CATLE goe fithe to to lb guar atee n ib kn sequace ny u s pict chaq e

Tkef example the a trume t t il r a ti \ 1516-4 sh wa hre The comb ed t yanle rift allo s tum misto be re moed with ut cot m t g th me h nd Also n th w te te l Uthe w te boldest uly not the soul I w te n the g ug gl



TLMOT CASTLE CO 115 U ty A Costle 1 I ot on 1 base I on pro en tho sy

502

510

522

524

531

535

CONTENTS-APRIL 1925-CONTINUED

ORIGINAL ARTICLES-LONTINGED FET SIDED ARROUDED A ABLONGE AS A COMPRIMETON OF ADROUDING THE COR! Nother

	M D and Alto : Ochine AB M D Chie		495
9	PRIMARY CARCINOMA OF THE KIDNEY John	L Des UD Rochest r Hinnesota	400

- TO ACTINOMICO I OF THE OVARY AND TUBE Ferdinand C Helwig M D Agnisas City Kansas
- CARTILACINOUS TUMORS OF BONE I solet II Acillet 1 B M D Galvestor Fexus
- 12 FRACTURES OF THE FOOT Lee Dret ka MD F 1 C.S Det oil Michigan
- 13 DIVERTICATION OF THE BRADDER CAUSING DYSTOCIA AT LABOR REPORT OF A CASE Il Blam L Wolfso : M.D FACS Booklyn
- 14 EMBRYO IC RESTS OF THE URINARY BLADDER Flet her II Colby M D Baston 528
- 15 THE CYTOLOGICAL EXAMINATION OF THE URINE AS AN ALD TO THE DIACNOSIS OF TUMORS OF THE CENTRO-LEINARY TRACE F J Parm nter MD FACS Buffalo New York
- 16 UNDESCENDED TESTICIE S Goylord Sonnel ad M D Cleveland Ol o

SOUTHWIS CONTINUED OFFICER HEXT PAGE

The Sphygmomanometer in Surgery

Fixal oth Cl city myonly coffining defacting that the fit of the surgery defaction and yealteen have what you will viscond a new in the fit in review odd be defact of the surgery defaction and before the fit in review of the surgery defaction and the surgery defaction in the surgery defa

for Complete Sterilization



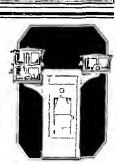
INDESTRUCTIBLE STERILIZERS

The Lincol Model Unit No 226 illus trated has instrument and dressing steri lizers made entirely without s ld r foe dry heat sterilization as well as bo l ng

The Cab n t has a removable porcela n top interior ill mination and gen ou storage cap cay Frished in ni e co is of bakedo white enamely

\$157 Complete

See This Unit At Your Dealer's



THE PELTON & CRANE COMPANY
632 HARPER AVENUE
DETROIT MICHIGAN

There are many indicat ons in

SURGERY

GYNECOLOGY

for which Diathermy is considered a specific

Recently numerous reports have appeared in the better medical journals giving details of these results and case histories covering many conditions—

PNEUMONIA—ARTHRITIS—PROSTATITIS FRACTURES—TRAUMATIC INJURIES ENDOCERVICITIS AND THE REMOVAL OF BENIGN AND MALIGNANT FOREIGN GROWTIS

Sdf prfm fth bill th thow ppd ig afth bodi whihw milleldly dry

THE LIEBEL FLARSHEIM CO

CINCINNATI O

717

550

567

CONTENTS-APRIL 1925-CONTINUED

OF TO INAL ARTICLES -C NTC ED

- 17 Some Ob triations on the Introde of Bill into the Duodenium I is inkelsion II is need took
- 18 Insulin (Licoh Treatment of Surgical Shock and Non Diraffic Actions 5 David
 Fish M.D. a. d. F.dm. ind Mensing M.D. Milwinkee Wisconsin 548
- 19 DIPHTHERITIC VACINITIS REPORT OF TWO CASES 16 alam F Lash MD (1 ca 556

DEPARTMENT OF TECHNIQUE

- 20 A METHOD FOR AN TAID TO EAD CASTROJEJENOSTOMI AFIFR A PARTIAL CASTRECTOMY
 T S M se M D and S C Harrey M D F 1 CS Arm Ha et Co neel cul
 - I SEFUL MECHANICAL AIDS IN THE TREATMENT OF FRACTURES OF THE SPINE F ede ick

 Of the Plant II D F 1 C.S. II: netka Illino s

 562
- 22 A NEW LORM OF LIGATURE NEEDLE II S Soutter FRCS Lond in England 56
- 23 \ MODIFICATIO\ OF THE CLANCULAR CROSS Bened t B Land v M D H 1 f rd
 Co neet ent

 566
- 24 A SIMPLE SILVER FOINT CALTERY Robe t L Dickins n M D I 1 C.S New York

CO TE TO CO TH LED O POSITE NEXT PAGE

PROMETHEUS

A PRESSURE STERILIZER YOU CAN AFFORD

YOU CAN AFFORD



The long product of the contract of the state of the stat

The sterilizer I 8 in maid dismeter and 16 in 1 mg giving small room f cdres g and linear It is very small to us and require but littly thempoon it terilizes the destig under 15 pounds pressur and then them them.



PROMETHEUS ELECTRIC CORP

358 W 13th St New Y k City

Send m compl to d tails of th low price Pressure Ster Name Address

Name of De I

Sand bridge of bridge of the Street

Give Your Patients The Benefit of Radium Therapy Under Your Own Control

na a hart not e- Seeds" for

Instruction in the Physics of Radium Emanstron—its therapeutic uses

Consult ou Med 1 Staff Communication dd sed to our Medi al Department will be a tant Henrico

Write for informats I terator -tod y

ຸດຕາກເຄດ ເປັນທານ ເປັນທານ

THE RADIUM EMANATION CORPORATION
250 W 1 Fifty Sey 11th Ser t N or Yo k City

Pituitrin

THE ORIGINAL PITUITARY EXTRACT

PITUITRIN as th fit p prat fit kd dibtin a dibr It ast drdp od t mply dth wild er t t dfr thrdfit nd catons well

I add t the suty fiddbyd bi t dad t ry packag dat d yr fyn p fyc y ed f pttrytt Pintr The datags PD&Lo widp fyPt tr S The parate two the togth If S rone IPt tr s cmm ddf Pt tr 1Pt -1 0 0 51 PITUITAL UTTRIV on 1.4 by different project.

PARKE DAVIS & COMPANY

DETROIT ~ NICHIGAN

PITUITRIN IS INCLUDED IN TILB N N R BY THE COUNCIL ON PHARMACY AND
CHEMISTRY OF THE ASSERTION MEDICAL ASSOCIATION

CONTENTS-APRIL 1925-CONTINUED

DEPARTMENT OF TECHNIQUE-CONTINUED

- 25 CHRONIC ENDOCERVICITIS ITS CLINICAL IMPORTANCE AND RESULTS FROM TREATMENT WITH THE ELECTRIC CAUTERY Carl Henry Davis M D F 1 CS Milwoukee Wesconsin
- 26 THE TREATMENT OF CHRONIC GONORRHOZA IN WOMEN WITH THE ELECTRIC CAUTERY
 25 II Shulter II D Milicaukee Wisconsin 532
- 27 A New Method for the Rymonal of Stone in the Ureter a Preliminary Report
 4 R Hugyl M D C W Monted Co of

EDITORIALS

- ADVANCED PULLIONARY TO BERCULOSIS A BORDER LINE DISEASE Willy Meyer M. D. F. A.C.S. New York
- CARCINOMA OF THE THYROID C G Toland M D F 4 C.S Los A geles California

MASTER SURGEONS OF AMERICA

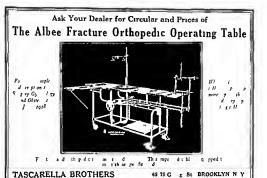
ARPAD GEZA CHARLES CERSTER II J Moyo MD F 4 C.S Rochester Mannesola

CO TENTS CO TINEED OFFICE VEXT PAGE

575

579

582



INDEX TO ADVERTISING

Resu m t f Tw tr-tw Y

ffigt1 dPly

KIELLAND OBSTETRIC FORCEPS



The use peents a d fine dv ntag in delw 1 g b b a when the he d s high and when the occiput n t n the anterior half of the pelvis

Rotation sea ly a compl hed w thout dang r

B nametal application liways pract cable

They do not all p because ther in an equal distribut in fip es ure all we the skull

The introduction of the ante o blad is seempl hed a ly and without dang rof lacerst ons

The user of the K elland for eps have supress defavorable post and the majority of them diel reith any natrument to be a definite advance in objet tipes

Sold by

CHARLES LENTZ & SONS

Sn 1866
Minul course of High G ad Su & all Institum note

33 South 17th Street

PHILADELPHIA

CONTINUED APRIL 1925 -- CONTINUED

TRANSACTIONS OF SOCIETIES

		ENICH STATEOROGICAL SOCIETI				
Tibr na	VARIO 1811 TO	A I SELDOMLETA DES CAST OF THE OVARY	11	¢	Dayfoth M D	585

BLINDY'S STOLLOWING THE USE OF THE ACUTAL CACTERY Into III C rick M D 595

DIPHTHERITIC VAGINITIS REP RT OF TWO CASES 46 ham I Last M D 585
CHRONIC GONORRIGAL ENDOCERNATIVE Ha old N 51 witer M D 285

CHRONIC END KERNKHIS ITS CHNICAL IMPORTANCE AND RESULTS FR M TREATMENT WITH FLECTRIC CALTERY Carl Heiry Davis MD

THE SURGEON'S LIBRARY

OLD MASTERINGS IN SURJERY—THE FRENCH SURGERY OF GUILLENEAU All et J. Br un VD F 1 C S. Omahu Nebraska

RIVIEWS OF NEW BOOKS IN SURPERY

[9

B-D PRODUCTS

Made for the Profession

W 19HING RESTORES ELASTICITY



ELASTIC WITHOUT RUBBER

BANDAGE

Ace Bandages Are Economical THF1 possess the elastic qualities of rubber

THT possess the elastic qualities of rubber bundages but contain no rubber. They can be sterilized by boiling. The porous weave mosures coolness and comfort. The soft feathered edges will not ravel.

Ace Bandages stretch with out narrowing roll events without need of reversing fit comfortably and evert a con stant firm pressure where needed



Ace Bandages are indicated in the treatment of varicose veins sprains dislocations ulcers swelling and weak joints post-operative work sensickness abdominal breast and fracture support also for bindaging the chest and abdomen of children to relieve strain in severe cases of whooping cough

Width-2 214 3 314 4 5 6 8 10 Inche Length-5 4 Y ds Stret hed

Supplied Through Dealers

BECTON, DICKINSON & CO

Mak s f G us L Sy ges, Yal Qualty Yordis, BD Th m m ters Ace B dages, Asept Syr ges, Sphygm ma m t d Spinal M in tr



2000 Miles in Eleven Minutes

AS AN example of speed in the dispatch of Medical Protective Service we cite you an incident where a Doctor was sued in Los Angeles Upon recept of the facts of the case in structions were sent to our Local Counsel in Los Angeles by wire We were advised by the telegraph office these instructions were in the hands of our autoriney in just elven minutes

The defendant in a malpractice suit wants service not theories nor experiments nor a hapbarard handling of the facts but a perfect control of the defense that can only come from an organ ization in full possession of all procedure pertinent to every possible situation.

> for Medical Protective Servics_ Havea Medical Protective Contract

Manicael Tolagenas Comeana December 19013211A. Fortware theres

The Practical Medicine Series of Year Books

In a Small Volume

All the Essentials and New in Local Anesthesia

In the preface the author says

I is gen by k h peratica, be d diacle either b b tryn af miod an fine by prese p wr fpu ts myramag mf bf th re be g slibed be t, in d myrama b and a be t, in d my be a bit or d w h b sc pe f local mes h in eq d

This modern common ense book is-

The Technic of Local Anesthesia

By A E H t I M D FACS
P festor 15 per L rn I K m to

272 P with 140 O i | I lill

You will note from the table of contents
that it covers the subject rust as

you want it covered TABLE OF COVERTS

TABLE OF CONTENTS

Drug Employ d

F Limbigal H rass H rass

G real Ope to

Operation on the Content

Operation on the Content

Operation on the Content

Sarriel Effecting F ran brail

d Spin 1 Anotherium

Open the Fac I and On the P of the Serot or dill Co. calls.

Open (ms h E d On the U co. calls Co. cal

Operation the T at 1 Ad on the Rect in On the Up at Extremeltes On the Up at Extremeltes On the Local transfer of the Up at Extremeltes On the Local transfer of the Up at Extremeltes On the Local transfer of the Up at Extremeltes On the Local transfer of the Up at Extremeltes On the Local transfer of the Up at Extremeltes On the Local transfer of the Up at Extremeltes On the Local transfer of the Up at Extremeltes On the Local transfer of the Up at Extremeltes On the Local transfer of the Up at Extremeltes On the Up at Extremeltes

DO IT TOD AND

THE C V MOSELY CO

SOON C ABI d S L I M

S d m of H titx I Calar | Lo | A es her

DI lass \$15 D Charg t my ccou

Shen_____

GENERAL SURGERY By A J Dc MD
P feas 1 5 sy Cell of Medic to U me of
Ill is Volume II be 700 se Proc \$3.00

MD Poloso of Pd Male I School VI m P 120 PEDIATRICS By I A A New U 37 00 GYNECOLOGY AND OBSTETRICS W MD Please of G Um Mileal School Di of G oc 1 B D L s. MO P. s. MO P feeso of Ohe tr y Medical School Yol m V 450 GENERAL THERAPEUTICS By B MD Assoc Classif Md | College | h U y I Cho. Val m Vi 375 ↔ Pric \$7.00

PO OCY Drawed

NERVOUS AND MENTAL DISEASES B P Beso MD Clas Predience 1 N round d M I Deserve M M deal C I for the VI mental M of the VI menta

Eh im ih trohilded dhed in inged im if dogodir i be inged im if dogodir i be dhedh

THE YEAR BOOK PUBLISHERS
304 S D bon St Chesg III

. 4



Lippincott's Newest Texts

BECK-The Crippled Hand and Arm By Carl Rock M.D. F.A.C.S. Chicaro Octavo 243 Pares 202 Illustra tions Cloth \$7 00

MIIIR-Text Book of Pathology

By Robert Mur M D Professor of Pathology University of Glasgow Patholog st to py Robert Mult Ball Protessor of a sthology University of Clasgow Antholog St to the Western Infirmary Glasgow Octave 778 Page 422 Illustrations Cloth \$8.50

a monte v

THOREK-The Human Testes

By Max Thorek M.D. Surgeon in-Chief American Horo tal Chicago Octavo 548 Pages 308 filuetrations Clath 48 00

DAVIS-Applied Anatomy Si th Ed ton

By Gwilym G Davis Thoroughly r ised by George P Muller M.D FACS of the Dayers ty of Pennsylvania Octavo 638 Pages 631 Illu trat ons in colors and black

Thus a has well kn am to the prof so ath oughout the world that the ann uncemert of s new edition t lb w from r s farticularly as this been complet ly brought up to dt by Dr M il r of the Un ers ty of Pennsyl ania

WILSON AND COCHRANE-Fractures and Dislocations Treatment and After-Care

By Philip D W f on Instructor in Surgery Harvard Med cal School and one of the a sociates of fo 1E Goldthwast of Boston and W llaam A Cochrine who i a ou ted with Sir Raceld Stiles of Edupurgh Octave 780 Pages 278 Illustrations Cloth \$10 00

ï.

ANSPACH-Gynecology 5 cond Ed tion

By Brooks M Anspach M D PACS Profes or of Gynecology Jefferson Medical College Philadelphia Octavo 752 Pag s 53 Illustrations 5 Colored Plates Cloth \$0.00

J B LIPPINCOTT COMPANY

LONDON 51 1973 16 John St Adda H C 2 PHILADELPHIA Since 1792 East Healt gon Sous

MONTREAL SI ce 1897 Unity Buildi g

WHEELER—Handbook of Operative Surgery

No Read

BYS No I Lake C of Water BA 34D PROSE FACS, Surg. to More Hospiel 4th A bo 1

Cold Hospield by 1 Switch and 100 at 15 Pagent 2 Bloom in \$55 are to More Hospiel 4th A bo 1

rec mm nd tion f r the book

McKENDRICK AND WHITTAKER-An & Ray Atlas of the Normal and Abnormal Structures of the Body

Have You These Ten Books of Well Established Super excellence?

BERTWISTEL by Federapped the Brown From the stope to 1800 TURNER-how Translated to 1800 DE COTENSIAL-to-on procedure to 1800 DE COTE

WILLIAM WOOD & COMPANY (E t 1804) 51 Foth A N wy

	RADIUM CHEMICAL CO
F	ORBES AND MEYRAN AVENUES PITTSBURGH PA
Plac X es squa neen in whi h you	m eres ed is understood this request will not oblig to me in any
Surgery	way
Gynecol	ogy M D
Dermate	ology
Urology	
[] Hospital	

WILLIAM CRAWFORD GORGAS

His Lafe and Work

Вч

MARIE D GORGAS and BURTON J HENDRICK

This biography of one of the outstanding figures of our times will be in the words of Dr Irahalin Marin almo t seemed to the younderson and surgeon an mensely taluable and inspiring to every doctor

Cloth \$5.00 Net



The Conqueror of Yellow Pever

PATHOGENIC (**) MICROORGANISMS

ANNA W WILLIAMS M D
Au 1 to D to B (Line to D partin t

CHARLES KRUNIVEDF JR M D

Au D et or Bu I Laboratories Auson t Prote
18 et 18 months of C B y B B Hero

O tot 8 8 2 u lh 1 cm 2 ns nd 9

full p 2 pitts C lh 3 5 5 n t

BASAL METABOLISM in HEALTH and DISEASE

By EUGENE F Du BOIS MD

Md 1D cotor Rusell S g I tit i P th I sy Amo 1
Prolessor 1 Mingron Corn Mingress to
O t 20 372 f is stulk 70 Must at
Children S and the Second to

PRACTICAL THERAPEUTICS

hant on

Oct to root p g ru th rag eng gr nd 8

Have you received a copy of our new catalog?

If not just check coupon below and on will be sent gladly

S Wa hington Square LEA & FEBIGER PHILADELPHIA

Send in book ch. k.d.\ ☐ Life (Gorga. \$5.00) ☐ P. ck. M. crodinganu in \$0.50 Du Boi. \$4.5 ☐ Haire \$7.00 ☐ \w.cst.log S. end

[15]



URGERY, GYNECOLOGY AND OBSTETRICS

AN INTERNATIONAL MAGAZINE PUBLISHED MONTHLY

DLUME XL

APRIL 1925

NUMBER 4

SOVIE OBSERVATIONS ON THE CONDITION SOMFTIMES CALLED LEATHER-BOTTLE STOMACH

By STANLEY WIARD WID WIR CP LONDON ENGLAND
Ass t tPhy to 1 th C 11 p tal

LTHOUGH extreme and obvious al terations in structure are encoun tered there is no other region of gas ic pathology in which such confusion reigns s to the exact nature of the change. It is ertain that in this name of leather bottle tomach more than one morbid process is in luded and in order to get a clear idea of all f them it is necessary to examine a number f allied conditions some of which at first ight present no similarity whatever. These onditions comprise the e that have been at lifferent times and by different writers called 1) leather bottle stomach (2) fibromatosis of he stomach (4) scirrhus carcinoma of the tomach (4) limits plastica (5) cirrhosis of he stomach and (6) fibroid induration of the tomach

An attempt to bring some order into the vacting chaos wis made in 1913 by Alexi. Thomson and J. M. Graham. As regards local fibromatosis their account leavis little for nothing to be added but in respect to the eather bottle stomach they do not think the observations recorded up to the present arc sufficient to decide its pathological nature. I hope in the following observations to do so

The term leather bottle stomach is one very commonly employed and familiar to every medical practitioner but what precisely does

it mean? I do not refer now to the pathologi cal characters but to the gro a naked eye appearance To what mental picture does the name give rise? I must confess that to me it is but vague and indistinct-a small organ the cavity of which is of but a few ounces capacity with contracted walls which are thick firm and ngid But to some it would appear far more definite and includes some hint of the patholomical change it is in other words a diffuse scirrhous carcinoma of the organ This latter connotation is I believe far too narrow and cannot be strictly main tained as is shown by a case which came under my notice 2 years ago Laparotomy was per formed and the condition diagnosed after manual and visual examination as leather bottle stomach Postmortem the organ was removed and the diagnosis confirmed by the macroscopic appearance But microscopically the condition is a diffuse colloid carcinoma

solution! I think to show that the name in question cannot be used to connote any particular histological structure and should be employed only to denote a certain macroscopic change in the stomach. It is in this sense that I shall employ it hereafter in discussing the subject.

450

From the cases which I am about to describe it appears that the names enumerated above stand for two separate and distinct pathological entities each of which has two subdivisions. The relation of these groups to each other is readily seen in the following tabular presentation

Two are innocent and two malignant while the leather bottle stomach may be either and the existence of these two forms explains the difficulty found in deciding whether the condition is one or the other

LOCAL GASTRIC FIRROGATONS

Of this condition I have discovered two specimens at the Cancer Hospital 1 one from a patient operated on in the hospital by Mr Jessett the other presented by Mr Swan who kindly allows me to use his notes con cerning the case. The two specimens are as nearly as possible identical and one description will answer for both

The stomach is greatly dilated and the

the peritoneum over it smooth and regular there are no nodules beneath it. There are no peritoneal adhesions and the tumor was very freely movable in all directions. The mass is 21/2 to 3 inches in length and the external diameter at the pylorus 114 to 2 inches It extends a somewhat greater distance along the le ser curvature than along the greater Since both specimens were obtained by opera tion and neither patient was examined post mortem the condition of the whole stomach cannot be shown but Figure 1 is a photograph of one of the tumors after excu ion (Case i No 126) When the organ is opened the walls of the pyloric portion are seen to be about an inch in thickness thickest at the pyloric opening becoming steadily tlunner as the distance from the pylorus increases until they pass insensibly into the thin di

tended wall of the rest of the viscus. The cavity of the stomach is large but the pylone canal is occluded and its lumen is merely notential The mucosal rugge of the fundus are fewer than normal and to a large extent flattened out Over the tumor the mucosa is extensively destroyed although there is no obvious ulceration The internal surface of the mass is nodular and the margin toward the fundus is beaped up and irregular it is quite sharply defined Inspection of the specimen shows quite clearly that the irregu larity is not due to any change in the thick ness of the mucosa but of the underlying submucous tissue The enormous increase in the ti sues lying between the remnants of the mucosa and the muscularis is the outstanding feature of both specimens. It is about half an inch deep at its maximum development and shows as a dead white granular layer hard in con istency and firm when cut Its outer margin is crenated and minute bands of it pass outward breaking up the internal mus cular coat into bundles of various sizes. The muscular fibers stand out as semitranslucent layer -a wide internal layer with circular fibers and a narrow external with longitudinal The proce ses from the submucous fiber tissue reach and fuse with the layer of fibrous tissue interposed between the two muscular coats which is considerably increased in but do not invade the longitudinal muscle although in later stages of the disease even this may be extensively involved. It is obvious however that there is no great inter fibrillary infiltration of the muscles and they are not destroyed as is the case with malig nant di case Although the lymphatic glands along the le ser curvature are enlarged and hard suggesting malignant inhitration this s not confirmed microscopically

The histological appearances are absolutely characteristic and bear no resemblance to a malienant growth. The mucosa may be fairly well preserved or extensively destroyed and represented by mere remnants of the glands which are widely separated and set itered through the superficial parts of the fibrous mass. They show no evidence of any attempt at proliferation and the fibrous tissue is surrounding them not they penetrating it.

The submucous tissues are enormously in creased and form a wide layer reaching as much as 15 millimeters in thickness super ficial to the muscular coats. It is composed of an inter-

may be

of the immature fibroblast type. The proportion of each varies from case to case. Here and there are areas of leucocytic infiltration. In one of the specimens a marked feature is the number of cosinophile cells present—they stand out prominently in sec.

case too fibroblasts predominate and the tissue is highly vascular the vessels are nu merous and large indicating a more active condition than in the other specimen in which the cells are more mature and the vessels few and far between (Fig 3) In both cases the internal muscular coat is penetrated by bands of fibrous tissue which are continuous with the submucous mass. At the periphery of the mass this segmentation of the muscle is coarse but toward the center where the fibrosis reaches its maximum the segmenta tion is finer and the resulting muscle bundles. are smaller and irregular in size and shape Some of the muscle fibers are destroyed. The fibrous septum between the two muscular coats also is increased in thickness and contiruous with the fibrous bands that penetrate the inner coat. The whole process amounts to an extreme and apparently progressive thorous commencing at or near the pylorus and spreading throughout the wall of the stomach. It is interesting to note that in these cases as with carcinoma, the disease is sharply bmited by the pylorus and does not invide the duodenum

Clinically the condition is indistinguishable from cancer of the pylorus and following are brief accounts of the 2 cases

Case 1 (No 126) E G age 3 years female

(sa u me ; tomit ing has been constant and frequent ever since. The



Fig L cal fib mat as f the stom ch

bowels have been consuprated for years. Latterily the abdomnal tumor has grown rapidly and there has been much pain in the right side and in the back. A stomach tube was passed and a quantity of sour smelling fluid of the color of tea is a drawn of I I was sound that the stomach was enormously diated and low in the belly the greater curvature descerding to the symphism pubits. There was a marked succession splash. With the stomach empty a pyloric three was a final profit in the way and easily it is a polar three was a final profit in the stomach empty.

thesia. The pyloric tumor was exposed and a par

nas discharged cured
Case 2 (No 1022) VI II age 67 years female has

was thin but not obspously asted the tongue moust and clean. In the addomen there is a rounded flat tumor about 2 sinch sin diameter which can be moved about freely in all directions consistency firm out the fairly regular not painful. When the mass is pushed down as far as possible no glands gor other mass can be felt between the tu



Fg 2 Section fill turn eft m Cs 2 (No 2 1) X 00 Tl eos phile ell st lot proma thy s l rg cell with small d eply sta 2 g nucl i

mor and the epigastr cangle. The liver cann the felt and its area of duliess is normal. Gastric resonance is not increase! The bowels are constituted in the patient has never passed a y blood but she has occasionally justed some mucus. There



Fg 3 Sect note on shann Figure Th fib as a starmo d the na Fgu 2 Th as a a file const confitted in the cert X25

but d stended e p cally lelow the unb cut. In testical per stables is a tible and ruch guighter is leard within the ablamen. The storach's id a tended and a succus ion pil st can be letted. There is epgastric traderness and ranked terder ness also in the hypogastrum. No turner c n be detect d. The h er and pleen are not palpable. There is some acities. Ex mand not flower is not the book reveals no abnorm by There is no en-

Since the article was written a third case has been admitted to the Cancer Hospital the detail of which are as follows

or meleba. There a constant massy taste us on the booth Bowels are fifty regular. He has we

not melena. There is constant nasty tastem the mouth Bowels are fight regular He has wasted considerable. The could previous allowers are mail rain "Salonik in 101" and an attack of nephritis preceding the onset of the present II mess. The main is thin and wasted he books ill and the complex on is sallow. The paws are edentulous the tongue fail by clean. The abdominal wall is I x.

The postmorten e musain n e alel general peritonits lue to pe forst in of lifet l's di effection and All the boxel is sidistend i and about the stomach were num rous all shors. The stomach sho i ala ge mas at th pyloru th fundus was in add all the did to opening the orgin the pyl ne mass in a sea alm si compl tely to a clude the anal. It prese ted a appea ance a cuty implar to this of C s 1 (No. 20 F g 1). On the greater curvatur the growth was well elfended and dus pead more than some s inches but the whole of the less recurvature was invole das fars as the c dra

Me o cop ally the growth c to six entitely of fibrous tissue. For the most part the fibers a ewell form d but fibroblasts are farly numerous. The fibrousa; i most in the d and reaches its maximum theknes in the submucous lyer. From the sub-



Fig 4 Ca c 4 (No 993) Diff se fibromatos if the stom ch. The pyl rus is to the left of the pict e the cardi t the right



The extern and de fibros s s ellsh wn

formed (ubules

That inflammation certainly plays a considerable

ETIOLOGY

It is impossible from a study of but 3 cases to come to any conclusion as to the cause of

corded case rases a suspicion that this infection existed. Not in any case so far as I know was the Wassermann reaction carried out but there is no certainty that we should be any the wife eventually the containt rue. If this condition be syphilitic it is certainly tertiany and no small proportion of tertiary manifestations are accompanied by a negative Wassermann reaction. Although chinical

evidence thus fails to enlighten us the his tological is I think conclusive. There is absolutely nothing in the microscopic char acters of the mass to lend support to such an assumption. The newly formed tissue is entirely fibrous without any proliferation of endothichood elements, giant cells are absent the conception of the properties of the con-

2 Inbreuloits Here again there is no evidence to favor such a supposition. Tuber culosis of the stomach does occur but when the infection has been proved the changes have been quite different from these Notubercle bacilh can be demonstrated in sections while the absence of endartentia epitheloid proliferation and giant cell systems settles the question and leaves no room for doubt. The condition is not an infective granuloma.

3 Aceplasm Case i (No 126) was ongnally diagnosed as malignant and was described and shown to several learned societies as a peculiar case of malignant disease of the stomach Careful examination of the sections however fails utterly to support such an interpretation. There is no excess of epithelial elements the mass consists praceitalists.

Lanc 39 ipp

tically entirely of mesoblastic tassue. The individual cells too are highly differentiated and not in any way atypical. The blood capillanes are well formed and their cadothelial lining evident. Nor is the arrangement of the cells atypical. These facts are equally

anything can be said with certainty concerning these cases it is that they are not malignent

expect a soil information that in 1 a a hard and dense. Moreover fibromata are as a rule circumsenbed and easily shelled out contrary to what is found here. The chrace ters of these tumors however very closely resemble those of the fibromatoud tumors or condition of fibromatous which have been described elsewhere? Their size composition of dense fibrous elements local infiltration so that no definition of the mass can be made progressive growth etc are all in conformity.

4 Lailly the condition may be infilammatory. Physiosis is the typical end of chronic non-

the ulceration of the mucosa is not primary but secondary to the submucous fibrosis and brought about by the interference with its blood supply caused by this fibrosis

But although the condition is not one of inflammation about a peptic ulcer neverthe less inflammation is certainly a factor as i shown by the presence of patches of leuco cytic infiltration and scattered cosmophile cell throughout the mass. How the you may reach the deeper part of the gastric wall there is nothing to indicate-it may be by metastasis from a distant sentic focus by penetration of the healthy mucosa a mucosa damaged mechanically by intragastric toxins or by way of a minute lesion or lesions of the mucosa possibly an acute ulcer. None of these hypotheses is very convincing how ever for in either case one would expect the lesion to resemble more closely that about a chronic ulcer The most probable solution of the problem appears to be that the condition is primary and neoplastic a fibromatosis upon which is subsequently engrafted an in flammatory element

SYMPTOMS

.

be a history of antecedent indigestion and

fibrosis does not present the same localized intensity there is not the same extreme submucous fibrosis but it extends more widely involves the whole thickness of the stomach wall so that the pentoneal surface shows evidence of it and the structures round about are also implicated by the formation of ad hesions As has been seen nothing of this occurred in either of the 2 cases under con sideration There is moreover nothing in the history of either to suggest the existence of a gastric ulcer while the mucosal lesion is not sharply circumscribed not a punched out loss of substance as is seen with peptic ulcer but is more diffuse and ill defined both in area and depth. I believe therefore that

flatulence Appetite is lost and there may be distaste for food Loss of weight is marked

On examination an epigastric tumor is felt hard not tender and freely movable file stomach is dilated it may be distended with gas there i a succussion splash and it is low in position—in fact there is pylone obstruction. No retroclavicular gland will of course be felt

Radiography will confirm the pylone steno sis and gastine dilatation. It may show irregulanty about the pylorus suggestive of malignant disease.

DIAGNOSIS

The dn ease will probably always be diag nosed as carcinoma and there are no means at present of distinguishing the two conditions apart from laparotomy and microscopic examination. In a few cases a diagnosis may be made of simple ulceration with fibross and again no method of distinction is available. In any case the treatment is the same

PROGNOSIS

Untreated the disease probably inevitably proves fatal The pyloric stenosis is progressive ind ultimately complete so that unles relieved strivation must result

TREATMENT

Only surgical treatment is of any axial and it should be a complete cure. Pylorec tomy with end to end anastomous or a poperal ys be con

dition

DIFFUSE FIBROMATOSIS

may in fact involve the whole viscus but whether in such a case it commences locally and spreads or whether from the beginning it is of wider distribution cannot jet be determined. When the whole organ is invaded a typical leather bottle stomach results and is illustrated in Figure 4.

dhe ion but elsewhere the peritoneal surface s

the extrem apex of which has escaped. The cavity

the no mal ruge of the mu ous membrane over the whole internal surface. The walls are thick in the pyloric end enormously so as much as 5 to 7 milli meters. The mucosa is not apparently thickened

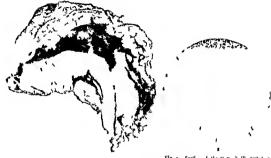
but beneath it is a very wide layer of submucous

The microscopical examination shows (Fig. 5) that the wall is thicker than normal and there is obvious exce sof fibrout itsue: in I The mucrost

meters or thereabout It is composed of a close meshwork of recently formed fibrous cells among

rare Beneath the perstoneal avestment of the organ is another laver of fibrosis from o to 15 millimeter in thickness. Unlike the submucous its use this is designed and composed of well formed fibers amo g which fibroblasts are few in number No 1 it highly search but the vessels are sear e. All it highly search is the treatment of the fibrosis the muscles are search and of the fibrosis the muscles are search fibrosis the fibrosis of the fibrosis for the fibrosis for the fibrosis of the fibrosis of the fibrosis of the fibrosis and vaciolated and their nucl i

the chin cal notes are v ry briefly as follows M H female 53 years of age as admitted to the Cancer Hospital complaining of stomach trouble for the past two years she has noticed that she is



I g 6 D ff seacurthus c remom i th st m h Frute

Fig 7 Secti f the st m h fill trated n

was somewhat less definite than p eviously the hypogastric mass was steadily increasing in size

both ovaries and numerous secondary peritonesi nodules

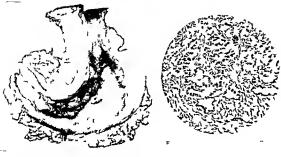
Pathology Ther is no re son to believe that the

- mhfh

is visible am is g i j along the course of the large lowed. A stony hard sausage shap d tumor is palpal le lying transversely immediately above the umbit cut. It is about g inches long in t tender and very freely movable in all directi ns. No glands can be felt in abdomen or neck.

leather bottle stomach are due to non m lignant disease

The symptoms di gnosis and prognosis are identical in the two condition. The treatm nt unfortunatly is not so a tisfactory. Ga tre tomy a



Fg 8 Diff se cylind cell rein ma of the st mack

colloidal selenium are being collected and vith full details of the method are being published in another place

DIFFUSE CARCINOMA OF THE STOMACH

Although it has been definitely shown that leather bottle stomach may be simple their is no doubt that the majority of cases are malignant. The type of malignant disease is not however always the same nor is it necessarily a scirrhus cancer. I have been able to obtain the specimens and sections from 8 cases of which it was non malignant and 7 malignant. As will be seen the growth may be one of 3 kinds. (i) scirrhous carcinoma (2 cases) and (3) colloid carcinoma (2 cases) and (3) colloid carcinoma (3 cases)

I Scirrhus carcinoma is illustrated by

CASE 5 (No 6 1) In Figure 6 it 5 seen that the whole org n is contracted and smaller than normal. The peritoneal surface is free from adhe 5 ons but studded except at the fundus with numerous nodules whitish in color and varying in size 1 m... is for the most part quite sharply defined. The

tends as far as the cardia and in the lundus forms a large pear shaped mass; about 6 centimeters in length by 25 centimeters which projects into the cavity of the organ and so still further diminished its capacity. Over this mass the mucous abous several small areas of superficial ulceration but its for the roost part intact. The lower end or stem fades steeply into the ulcer on the posterior wall fades steeply into the ulcer on the posterior wall on the greater curvature the rowsh. A h

t ... 14. Auge masses along both curvatures of the organ. These masses are nodular by reason of the enlarged lymphatic glan is incorporated in them one of which is seen in the lesser curvature measuring 3.3 by 16 centimeters.

Histologically the growth is a typical scirrhus (Fig 7) but instead of forming a mass the growth



Fg: Diff we flo leaves ma fithe timeth Ti

spreads in the submucous planes. Benerth a nor mal mucosa columns of polygonal cells are seen in filtrating the stomach wall. Individual columns are small and the fibrous strom; round about is well developed so that the growth is not a highly cellular one but hard and fibrous.

Cylinder cell carcinoma Every grada ton custs between searning and Cylinder cell carcinoma and to draw any hard and last line of distinction between them is impossible in both cases the characters of the parench mal cells are the same and their arrangement is not essentially different the distinction lies in the relative amount of parenchyma and storm. In the scirribis type the stromy per storms of the strains type the stromy of the scirribis type the stromy of the scirribis type the stromy of the strains.



Fg : Sectin f the 1 m h sh wn Fgure :

well from the growth. If e subserous t ssue is also thickened and sh ws as a well m rk d white band between pe itoneum and muscle. Towards the fu dus the muscular coats a e widely in plac s

former contains a large secundary mass of growth lying in the lesser curvatu e the latter form an elongated sausage shiped mas lying along the greater curvature

variety the two tissues are more equally represented. But it seems at best a distinction without a difference ind were not both described in current text books of pathology they would not be separated here.

Casa, 6 (No. 4,6 F.g. 8). The hole stome h is contacted and very small it cavity, ill contain not morth n. 4, to 5 ounce of fluid. The mucors is every white destroyed and in where pe sint the normal elv ty apper ce in the finds the estense terregular path hy sup ricrail ulcrae to but it explore cend of the org in a partially filled with a write. Tregular groth is without call doubt with a write. Tregular groth without call doubt.

muc us 1 set 1 g my strom but little maked three the inceas of fbrous tissue is entr by in the gr with su rou ding the columns of mal grant cells. In this case the

inv sof att b a ...

ham is are sen filled with care nom cells spr d ing down fom the surface gr with The e is no e dence of the s brone is infiltrato seen n Case 5 (No 521)

and (discas

is situated in the stomach to find it involve the whole or almost the whole of the organ Thus in Figure 10

The muscular tissues are for the most part pre served but in places the vall is composed entirely of new growth The mucosa is completely destroyed over the area of the tumor but a small amount remains in the fundus of the organ. The internal surface of the stomach is rough and nodular Under the peritoneal layer also are numerous nodules and the growth has extended into both mesenteness which are thickened hard and contracted. The growth is absolutely limited to the right by the pylorus and does not invade the duodenum. The

> re is typical fibrous septa The naten destroyed by

colloid degeneration only in the central parts of

the lobules are a few living or moribund cells to be seen The condition could not be mistaken for anything else The etiology symptomatology diagnosis and treatment of these cases do not differ

from those of carcinoma ventriculi as a whole and do not call for particular notice here

LOCAL CARCINOMA OF THE STOMACH

The main characters of this disease are so generally known and the subject is so wide that I do not propose to deal with it here. In any case it is not strictly germane to the subject of this paper and is only mentioned to complete the tabular representation given previously

SUMMARY Leather bottle stomach is thus seen to be

neither a clinical nor a pathological entity and is a name that should be abandoned as serving no useful purpose. The controversy as to its nature whether simple or malig nant is also settled since it may be either the one or the other Diffuse fibromatosis or diffuse carcinomatosis are suitable names which aptly designate the two conditions in cluded by the original term

POLYPOSIS OF THE COLON

A SURVEY OF THE SUBJECT

BY JOHN F FROMANN M.D. FACS AD JOHN II MORRIS M.D. NEW YORK
From h S. fx | Deeps to t. N. & For st laste Hosp. 1

HE growing frequency and prominence in the literature of articles on the sub

.

of Ln

It has been the privilege of the senior writer to have observed over a period of years a considerable number of these cases and upon the basis of such observations we would open a

male sex

The occurrence of simple beingn intra lumentry tumors of the gastro intestinal triathas long been a mitter of such common observation that their appearance has ceased to excite more than passing interest. We recognize the frequent association of intestinal polyps with intussusception (fig. 1) intestinal obstruction and a vinety of vague abdominal symptoms. But until the presence of these inte final polyps is signalized by some actue abdominal calamity they are regarded as of little chinical or patholo_scal importance.

Lxpene prove tha

condition
interest and that its study in spite of the
obvious difficulties in the way of its efficient
treatment will supply information of practical value to the surgeon as well as to the
pathologist.

classification and nomenclature are of primary

În 1006 Dewis în a review of the literature on the subject of beingin tumors of the gastro-intestinal tract was able to collect a senes of 219 cases in which accurate micro copic studies were made. An analy is with classification of these tumors on a pathological basis re ults in the following figures

T 700	T tel	r.	Rec	Per
	,		112	
g ma broma	3	3	3	66
proma	5			4
ly ma	4	8	10	3
pom dnm	44	٥.	. 6	4
d n m	7	57 9	8	64

The striking preponderance of adenomata among these tumors focuses our attention upon them and a further companion of their material distribution in relation to all other forms is of significant interest

The adenomata then increase in frequency, in direct proportion as we proceed distally through the gistro intestinal tract. In the small gut other tumors are four times as common in the large gut they are present with the same trequency is all other forms combined while in the rectum they are three controllers.

adenomatous polyps occur frequently and usually in a multiple and widely disseminated

101

From the foregoing we may summanze as follows

 Gastro intestinal polyps may be—histo logically adenomata fibromata lipomata myomata or angiomata

Adenomatous change however is the common histological picture its preponder ance increasing in direct proportion as the distance from the ileocrecal valve increases distally and it shows a distinct tendency to favor the large gut

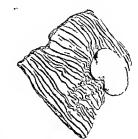
3 Adenomata unlike other forms occur but rarely as solitary tumors frequently as scattered tumors and are almost unique in as suming a multiple or disseminated character

Various writers on this subject have at tempted further classification within the ade nomatous group itself For instance Lock hart Mummery propo es to separate these tumors into four groupings on a basis of as o ciated pathology and apparent etiology as follows (1) true multiple adenomata (2)

Polypoid condition resulting from ul cerative colitis

Woodward proposes still another group un der the term pseudopolyposis of the colon and characterized by the formation of polyps arising from island of mucous membrane isolated in the bases of dy enteric ulcers. He distingui hes this condition definitely from that de cribed by Virchow under the term coliti polypo a as a disseminated multiple tumor formation of idiopathic origin in the colon

Although the morphological and anatom ical characteristics of these various types of adenomata seem to justify the above complex classification we are impressed by the fact in a histological study of these groups that they one and all represent merely a difference in degree of the same inciting cause. Accordingly for practical purposes we assume all adenomatous polyp to be of basically similar



a sol tary fl omyon Fig r De Moeh d a cept on of the small gut of the fleum product gan lus o tra t thith ale omato spolyp of the larg gut

nature and therefore refrain from separating

type (2) adolescent (congenital dissem mated) type

ADULT (ACQUIRED) TYPE

The first form is evidently acquired during adult life and presents itself grossly as a few scattered polypoid tumors closely associated with frank evidences of chronic irritation of mucous membrane such as hemorrhages ero ions ulcerations strictures etc

Routine autopsies repeatedly disclose the fact that these tumors are frequently symp tomatically silent throughout life on the other hand these apparently innocent tumors do at times initiate symptoms which threaten the life of the patient unless accurate diagnosis and efficient treatment are obtainable

The senior writer has recently had under hi care a male patt at of 50 years of age who for a period of several years c mplained intermittently of rectal ble ding ague abdominal and digestive symptoms



Ig So rwriter case hwg () diffuem u membra chyperpl a fitle caeum m. It i as mul i pl sessile polyps nd (b) sharp lim tat i f the p oces t the larg gut.

and progressive loss of weight. This patient was subjected to endless diagnostic pr cedures which included gastro-intestinal \ ray and proctoscopy

troublesome symptoms

ADOLESCENT (CONGENITAL DISSEMINATED)

The second type manifesting itself early in youth by intermittent profuse rectal bleed ing and dy sentery with consequent secondary anamina presents a definite clean cut and unmistakable picture which may be supplemented by a history involving other members of the same family. The mucous membrane of the gut usually colon from ileocreal valve to anus is thickly and uniformly studded with multiple adenomatous pelyps without apparent concomitant signs of etology as seen in the first group (Fig. 2).

The contention may still be made that

grouping suggested

Virchow in 1863 first described the disseminated form under the term of colitis polyposa but it was not until 1882 that real interest was stimulated by Cripps who was privileged to observe and describe three cases occurring in the same family

was suffering from a marked secondary anamia

apatoacherry

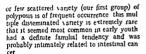
While still under observation this patient said death succumbed to an acute insteamal obstruct a which upon autopsy proved to be due to an adenoactriomaticus stricture of the signoid adjacent to which the bowel was the city studded with multiple redunciated polyps. Subsequently the same to perform the complex consistency of the conpution. Doth of whom had complained of rectal beeding and partial defection as long as they could remember. Specimens of polyps taken from the could remember Specimens of polyps taken from the other could be consistent of the could remember.

Stimulated by the unusual features of these cases. Cripps made a careful study of the specimens together with others which he was able to collect in a search of the London laborationes. In consequence of this study he described what he believed to be a rare clinical entity a composite picture of which is somewhat as follows.

The mucous membrane of the bowel u u ally from the eleccacal valve to the rectum 1 studded with small tumors varying in size from a pea to a walnut some pedunculated and some sessile. They are disposed more of

appear as a minute glove finger protrudin into the lumen of the gut. Some are described as giving the appearance of the mucous membrane having been slashed into nobons which are left attached at one end Many unite at their extremities while ire quently several seem to arise from a common branching pedicle. In conclusion he call attention to the fact that whereas the single





Subsequent literature has not been wanting in clinical experiences supporting these early theories For example Hanford in 1800 re moved from a noman of 34 years a rectal pol vp She died s months later as a result of an acute intestinal obstruction Autopsy re vealed a colon studded with adenomatous polyps one of which bad infiltrated the sub mucosa and muscular coats to produce a stricture Niemack reports the case of a girl of 12 years who for 3 years had presented typical symptoms and in whom a proctoscopy disclosed the usual lower gut picture. This child died while under ob ervation and it was found at autopsy that her colon was beset by multiple adenomatous polyps one of which had definitely passed over the border line in to an early adenomatous stage Some months later this girl's father reported complaining of hamorrhoids and 2 years afterward again appeared with a rectal carcinoma with which were associated a number of polyps finally a nephew of the fast patient 20 years of age presented himself giving a history of 2 years intestinal hamorrhage which upon rectal examination was found to arise from a number of scattered polyp

Upon the service of the senior writer ne have had ample opportunity to study the in teresting features of this disease. Illustrative



Fg 4 Dr Russells c se Ulcerat ng aden care noma f exeum with cattered pedu ulat d polyps d t but i about its ma gi

of the adolescent feature of the disease were two male patients 14 and 16 respectively who had noted rectal bleeding dysentery and pain ful defacation at irregular intervals since early childhood

One of these patients came to operation for relief of the serious depletion and secondary animal consequent upon prolonged bleeding and dysenters which had failed to repiond to treatment by way of appendixostomy irrigations. A receition of the colon in conjunction with an end to end it oug modostomy resulted in a good recovery and an eventual oute of the patient. Again as to the familia feature of the disease the senior writer observe!

These cases tend not only to suggest a composite clinical picture of polyposis of the colon but also furnish further justification for separating them into two disease entities on a symptomatic basis

On the one hand one constructs the pic ture of a child or youth usually a male vary ing in age from 10 to 18 or 20 years who for



a considerable period of time has been having

1 princilly well but sooner or later progressis e anzima depletion and emacation produce a condition demanding urgent in teterence or too frequently an intestinal malignancy superion is in these young subjects and surgery is called upon to play its impried role in strying the diese. Finally

semnated adenomatous polyps involving the inucous membrane of the large gut. It should be emphasized that this pathological change is with very rare exceptions limited to the large gut and rectum and especially should it be noted that the rectum is the favorite site of the tumors a hatever may be its extent or location in the large gut above.

From the last it follows that except for the few rarties one may establish or reject the diagnosis of the adolescent type of polypo sis of the colon upon the indings of a rectal from the above. This type being secondary to some antecedent disturbance gives a pic ture which is colored by that condition. But in general the patient is in the middle or late period of the and has for a number of years complained of coluts which of late has been complained by occasional moderate harmorrhage from the rectum together with lower abdominal distress cramps and in testinal indigestion. The patient not being actuely ill is prone to be dilatory about seeking advice until loss of weight anarma or the possible manifestations of malignant change place him like patients with the adolescent

type in the realm of surgery

The gross pathological picture is quite
different from that of the adolescent group
At ome point of the large gut there is evi
dence of acute or chronic mucous membrane
irritation—traumatic erosions where of various
stricture as the case may be and adjacent
thereto a few scattered poly so of adenomatous
structure. The tumors are limited in number

polyps in the rectum whatever may be its location or extent in the gut above. In the adult variety however because of the limited number of tumors and their tendency to group themselves about the causaive focus

of the e polyps to mitestinal matignancy and because of the Light which it may throw on entology a instological study of the process is of particular interest. The tumors of polyposes are found to be made up of two essential elements. (3) the stulk or supporting frame mock of the tumor which is derived from and

identify it



Under the term of inflammatory adenoid hyperplasia. Ewing describes this process as a diffuse thickening in which glands and

stroman t

assumed to the effected by the mechanical traction exerted by the ever moving intestinal contents upon the areas of thickening infiltration and edemy thus eventually leading to their intrusion into the gut lumen as definite tumors.

One step further in our histology brings us to the most intensiting and important feature of polypois viz the relation of this disease to intestinal cancer. We have repeatedly been able in a study of gro s specimens in these cases to demonstrate clearly in the same gross specimen all morphological grada



Fg 7 Se of nater se II h po e plot m crograph f sect n fr m a polyp f d 1 e hborhood f car om of igmod

tions from simple polyps through early in filtrative tendencies up to frank and unques tioned adenocarcinoma. Followed histologically the state of t

clearly

from simple inflammatory hyperplasia to tumors which are morphologically pathologically and chinically adenomata and carcinomata

Further details on the pathology of this condition are best referred because of the limitations imposed by space to the accompaning figures. Figure 4 is a photograph of a specimen of the execum and ascending colon removed from a lemale patient of §8 years following an intestinal obstruction. The speci

die II

Figure 5 1 a low power of section taken from one of the polyps in Figure 4 It shows



Fg 5 Low po e ph t m graph of ct f the polyp h w l gu 4

a considerable period of time has been having intermittent harmorrhages from the rectum associated with mucous dy sentery alternating with constipation and a more or less apparent secondary armina. Between attacks this patient is perfectly well but sooner or later progressive anamia depletion and emaciation produce a condition demanding urgent in terference or too frequently an intestinal malignancy superviews in these young subjects and surgery is called upon to play its bimited rôle in staining the disease. Finally

from the above. This type being secondary to some anteredent disturbance gives a pix ture which is colored by that condution. But in general, the patient is in the middle of late period of the and has for a number of years complianced of colluts which of late has been complicated by occasional moderate harmorrhage from the rectum together with lower abdominal distress cramps and in testinal indigestion. The patient not being acutely ill is prone to be distory about seeking advice until loss of weight anima or the possible manifestations of malignant change place him like patients with the adolescent

type in the realm of surgery

The gross pathological picture is quite different from that of the adolescent group At some point of the large gut there is evi dence of acute or chronic mucous membrane territation-tranmatic erosions, picers of van ous types tabe worm (in one case studied) or stricture as the case may be and adjacent thereto a few scattered polypsol adenomatous structure The tumors are limited in number and extent showing a tendency to array them selves in the neighborhood of the pamary focus wherever it may be located in the large gut (Fig 3 and 4) So that we expect the adolescent disseminated variety to present polyps in the rectum whatever may be its location or extent in the gut above. In the adult variety however because of the limited number of tumors and their tendency to

large gut and rectum and especially should it be noted that the rectum is the favorite site of the tumors whatever may be its extent or location in the larg gut above From the last it follows that except for

the few rarities one may establish or reject

of these polyps to intestinal malignancy aum because of the light which it may throw on entology a his tological study of the process 1 of priticular interest. The tumors of polyposa are found to be made up of two essential elements. (i) the stalk or supporting, frame and the process of the

h nd de 01

On the other hand our clinical picture in the adult (acquired) variety varies somewhat

idehuly it

lesion renders removal of some of the tumors through a proctoscope a practical possibility when the group is low down in the large gut or rectum And although some of the group may be unapproachable even under the most favorable circumstances the removal of as many as possible by this route is justified by the fact that the malignancy incidence will be theoretically reduced in proportion as the number of existing tumors is reduced

A problem of different character presents itself in the disseminated variety of adoles cence Here the almost certain involvement of the whole or greater portion of the large gut with the possible extension in a small per centage of cases into the small gut for a van able distance render efficient surgical approach a matter of some magnitude. In order to remove the menace of the polyp bearing area one must consider the resection of the entire large gut and rectum only to find pos sibly that the limits of the process have not been reached and that involvement of the tract higher up determines an unaltered prog nosis In other words eliminating the diffi culties of such radical procedure, the problem

the peculial thickening of the gut wall could be readily palpated after open ing the abdomen and the extent of the process accurately determined by this means are unable to confirm this as a constant find ing in these cases but should it prove to be such one of the most difficult problems-de termination of the extent of involvementwould be solved Lilienthal and Soper both the affected mucous membrane a cure of the disease is inconcervable by this method

Radium has as usual come to the rescue with reports of improvement of the symptoms and diminution in size of the tumors but none has been so bold as to report a cure by this

In brief then one may sum up the present status of the treatment of this condition by saving that the only method which holds out any bone for cure in the disseminated variety of polyposis is one imposing upon the operator great technical difficulties upon the patient great danger and upon both the possibility that a successful operation may prove fruit less because the operator bas been unable to determine accurately the extent of the proc ess and has therefore left behind areas ca pable of transmitting all the original potential ities of the disease. There is some hope to be entertained that the development of \ ray experience along these lines will eliminate one of the obstacles to treatment by permitting a pre operative determination of the extent of the tumor formation

CONCLUSIONS

In conclusion we would summarize our opinion of the present status of this disease as follows

1 For purposes of standardization it is suggested that the term polyposis of the colon be limited to designate an adenoma tous hyperplasia of the intestinal mucous membrane as opposed to those polypoid tumors of the intestine which are histology cally fibromata myomata etc

2 Polyposis of the colon appears to be a uniform non specific mucous membrane re action variable only in degree to a chronic irritant in the presence of a preternaturally sensitive mucous membrane

3 It is manufested grossly as scattered in tralumenary tumors varying in size from a split pea to a grapelruit and has a specific predilection for the large gut and rectum ph ha d

tainy youin by chronic recurring attacks

years ago by radical colectomy (cæcum as cending tran verse and descending colon down to lower sigmoid) after repeated failures to produce results with an appendicostoms

t operations undoubtedly do offer some relief by reason of the rest which they afford

clearly the change from the normal mucous membrane himp the gut wall into that characteristic of the adenomatous structure of the tumor viz hypertrophy of glandular cells increase and inhitration of stroma together with the fibrous stalk continuous with the submucous fibrous to also Owing to the plane

ing its journey back and forth in response () peristals and antiperistalsis. Given a susceptible mucous membrane response to such a series of stimuli takes the form of multiple areas of iritative hyperplasia myolom first the muco a and then the submicosa as the local mechanism produces the polypoid tumor. It seems logical therefore in view of the

this case falls into the adult group and that it illustrates one of the transitional possibilities of these so called innotent tumors

Stift these facts in faind one is prone to regard any simple inflammatory hyperplasia or adenomatous polyp in this region as a potential source of danger to the patient while theoramg on this phase of the subject one cannot but be impressed by the assertion of Verse that most gastro intestinal cancers arise from the simple adenoma which in turn is based upon an intecedent simple inflam matory hyperplasia of the mucous memlirane.

tus unesase to cinouic irritation whence on not the irritation is tuberculous dysenter parasitic mechanical etc is immaterial. The point to be emphasized is that adenomatous polyposis is a uniform non specific reaction (Fig. 3) to a great variety of incuting causes and the reaction is only vanable (in degree not in land) as the intensity of the shumbus and the character of the soil varies. And in

adult life have had such a life history in

some support to this theory
In approaching treatment one may with

I tiology seems almost to suggest it the a we study the hie history of the process. The equence of irritation influmnation reaction mucous membrane hyperplasia and polyp formation is readily acceptable.

Then also in the colon we have a mucous membrane coated viscus the function of which is to store a harsh food residue and while so doing to deprive this residue of the last

tendency of these tumors toward chronic hamorrhage and diarrhoea predicatino a sen

of any other benign process

with a proces the limits and extent of which we are unable to determine definitely by any

PLASTIC SURGERY OF THE NOSE

BY GEORCE WARREN PIERCE MD SIN FRA CT CO CALIFORNIA

THERE is at this time a growing inter est in plastic surgery of the nose The L work is difficult and mistakes if mide are of course constantly exposed to public view Patients usually expect perfection and are hard to please. It is well not to promise too much To do the e operations requires patience judgment and a refined technique

In this paper I will discuss and show some cases of nose reconstruction consider various deformities due to injury disease and consome suggestions regarding reduction of hump of the nose and also some apparatus of

value

Figure 1 shows a patient who was infured by an explosion of a compressed air tank over which he was working. A fragment of the metal tank tore away nearly half of the hose and lacerated the upper eyelid. It was po st ble at the first repair to slide the tissue of the cheek so as to cover the upper portion of the nose but the remaining defect required a reconstruction operation which demanded a supporting structure and epithelial lining as well as an enthelial covering. The first step therefor

of rib

meter

strip rested in the stump of the ala. After 6 weeks a strip of skin bearing the rib cartilage on its under surface was turned over and the free end sutured into the tip of the no e Other flans from the nose were turned down

> thead then After

3 week the pedicle was evered and the unused to ue was returned to the forehead

The ca e illustrates the surgical axiom that cavitie such as the naval easity

the material of choice de tite the scarring as the skin of the face differs in texture and

appearance from skin of other part of the body

The delect shown in Figure 2 was treated in a somewhat different minner. This man was injured in a fall and a projecting stick tore away completely one half his nose \t the first operation the remainder of the nose was sutured to the soft tissue of the rheek so that when he came to me several months later his nose was as one might say lying down on its side on his face Before recon struction was done the defect was recon stituted as shown in Figure 2 and the wounds allowed to heal This allowed an accurate estimate of the tissue loss to be made. After

the nose completed and as the glycosuria

partly baid the use of scalp tissue was feas able. The epithelial lining in this case was provided first before the flap was brought down A 5 centimeter square epithelial inlay by E ser's method was done beneath the scalp at a point to correspond with the extremity of the proposed flap. After 10 days the wax was removed and the next day the temporal artery pedicled flan was brought down and sutured into the bridge of the nose The enathelial inlay wa tound to be com pletely succes ful both on the under surface of the calp and over the gale a The uniform succe s of I wer s type of I in graft lend con fidence to the surpein is it may almost always be relied upon for a complete take

Twenty days later the pedicle was severed and the remunder of the flap returned while the ran surface was sutured into the cheek Becau e of the tirmne of the scalp tissue this nose in the alar region has maintained its contour and has not callan ed for want of cartiligmou or other support and the inner surface has showed no contracture or distor-

Read befor the California Stat Medical Society Los Angeles M v

of intestinal hemorrhage and diarrheea and less frequent cause its consideration should showing a distinct tendency to involve mem bers of the same family

b An acquired variety first appearing in adult life in association with front evidences of chronic traumatic and inflammatory lesions to which they are evidently secondary

5 7 he mirke а maher жг cent and a tendency to chronic intestinal

hæmorrhage and diarrhora They are dis similar in that the one (adolescent) is widely disseminated appears in almost countless numbers and show no gros evidence of a can after lesion, while the other (adult) occurs in limited numbers and extent with

cumulative result of prolonged irritation in cident to years of functional activity of the gut

6 In the presence of per 1 tent and unex plained tectal bleeding and dy entery in early life suspicion should be aroused of the exist ence of the a lolescent form of polyposts of the colon in adults although a relatively

ing hymogrhade and diarrhops and the high malienancy incidence. Non-radical palliative treatment compries excostomy appendicos-

the extent of the process

Note—I the preparation of this pipe & id bt ite Drs J J Mooch | The mas II R ss II and J ha D St worlfo the use feaves depeads as first dy dt D Paikimperfinvalubings tons d a. tan e prepara e pecim n

BIBLIOCRAPHA

CARROLL W C Surg Gy ee & Obst 1915 x 4: Capps Hagel v On Dies ses 1 Rect m a d Asus, 3d ed Lond Ch rehill 907
Dewns J W B t n N & S I 1906 1 47
Ewry Jane Neopla 1 Di ases d'ed Philad lph Saund rs o 457 Has road H T P th Soc Lond 1800 1 133

PLASTIC SURGERY OF THE NOSE!

BY CEORGE WARREN PHIRCE M.D. San FRANCI C. CALIFORNIA

then

HERT is at this time a growing interect in plistic surgery of the no e. Thiwork is difficult and mistrikes if mide are of course constantly exposed to public view. Priterits usually expect perfection and are hard to please. It is well not to promi e too much. To do these operations requires natione; judgment and a refined technique.

In this paper I will discuss and show some cases of nose reconstruction consider various deformaties due to injury disease and con genital malformation and finally introduce some suggestions regarding reduction of hump of the nose and also some apparatus of

value

Figure 1 shows a patient who was injured by an explosion of a compres ed air tank over which he was working A tragment of the metal tank tore away nearly half of the nose and lacerated the upper evelid. It was possi ble at the first repair to slide the tissue of the ch el so as to cover the upper portion of the nose but the remaining defect required a reconstruction operation which demanded a supporting structure and epithelial houng as well as an epithelial covering. The first step therefore was to implant in the cheek a strip of rib cartilage 2 centimeters by 4 milli meters by a millimeters. The inner end of this strip rested in the stump of the ala. After 6 weeks a strip of skin bearing the rib cartilage on its under surface was turned over and the free end sutured into the tip of the no e Other flaps from the nose were turned down head

After

i weeks the pedicle was seve ed and the
unu ed tis ue was returned to the forehead

This case illustrates the su gical arom that

cavities such as the nasal cavity when

une material of choice despite the scarring as the skin of the face differs in texture and Readbet to Calif. Sta. Mod.

appearance from skin of other parts of the

body

The defect shown in Figure 2 vas treated
in a somewhat different manner. This man
as singured in a fall and a projecting stick
tore away completely one half his nose. At
the first operation the remainder of the nose
was satured to the soft its ue of the check so
that when he came to me several months
fater his nose was as one might say lying
down on its side on his face. Before recon
struction was done the defect was recon
struction was done the defect was recon
struction do the face in the wound
allowed to heal. This allowed in accurate
estimate of the tissue loss to be made. After

the nose completed and as the glyco una

partly baid the use of scalp tissue was feas able The epithelial lining in this case was provided first before the flap was brought down A centimeter square enthelial inlay by Is er's method was done beneath the scalp at a point to correspond with the extremity of the proposed flap After to days the wax was removed and the next day the temporal artery pedicled flap was brought down and sutured into the bridge of the nose The epithelial inlay was found to be completely successful both on the under surface of the scalp and over the galea. The uniform uccess of I sser's type of skin graft lends confidence to the surgion as it may ilmost always be relied upon for a complete take

of intestinal hemorrhage and diarrhoea and showing a distinct tendency to involve mem bers of the same family

b An acquired variety first appearing in adult life in association with frank evidences professor has all higher his h

cent and a tendency to chronic intestinal hamorrhage and distribuca. They are disimilar in that the one (adolescent) is widely disseminated appears in almo t countless numbers and shows no gross evidence of a causative lesion, while the other (adult) occurs in limited numbers and extent with almost invariably associated gross evidence

malignancy incidence of more than 40 per

the extent of the process

NOTE —I the preparation of this paper we see ind be edit Dra. J. J. Moo b. d. The mas H. Russell and J. ho. St. warf. I he use fewer of specimens for study dit. D. Pa I khempe e ferinyal bles ggestion in pages i preping precimens.

BIBLIOCRAPHA

cumulative result of prolonged irritation in cident to years of functional activity of the gut

6 In the presence of persitent and unexplained rectal bleeding and dysentery in early life suspicion should be aroused of the eu tence of the adolescent form of polyposi of the colon in adults although a relatively



Fg 44 d b Anoed Sect d to the seles year old fractice. If state paparates for tannate ted. The metal capeoplate for the upper technical section of the remaint in Tule at teplit.

were made intranasally Six weeks later the night eight in be artialize was removed sufficient eartilage taken to restore the bridge and the remainder burned in the abdominal sub-cutaneous tissue for a reserve supply in ease of failure. Over 2 years have elapsed since this operation and the contour of the nose remains unchanged. I prefer cartilage to bone or ceiluloid as it is easily shaped does not absorb so easily as bone withstands infection better and is not apt to be extruded as is ceiluloid.

The case shown in Figure 6 is that of a saddle nose type following a submucous resection of the septum. In this reconstruction eighth in beartilage was also used the same approved serving for introduction of the cartilage. The picture shown in Figure 6 shows a slight swelling of the base of the

It dfro on ti

columella. This picture was taken a short time after healing

I have noted in reviewing the case illustrations in the literature that the tendency

ting through the membranous septum and bringing the kinde out at the base of the columella a septal elevator may be easily passed up between the mucous membrane and the skin to prepare the cartilage bed This procedure makes the passing of the



Ig 6 As ill mose fill ug bm a resect n f



lor a albout 1 al

tion such as a often feared in the use of the epithelial inlay The last operation was com pleted about one vear ago

Figure 3 illustrates a typical rhinophyma The second nicture was taken 8 days after operation and this fact explains the slightly roughened appearance of the bridge of the nose Since then the area has smoothed down The results from operating upon rhinophyma are spectacular but the opera tion is easy as compared to the reconstruction work shown above. Some surgeons merely shave off the excess to the consisting of hyper trophied sehaceous glands and ducts with accompanying overgrowth of the connective tissue and allow regeneration of skin to occur from the epithelium at the bottom of the ducts This epithelialization is accomplished in a few days and it is evident that the tissue mu t not be removed too close to the mani sup porting structure as this would destroy the e islands of epithelial cell

Often surgeons di sect out the gland bear ing ti sue leaving the skin attached at the alar border and return the skin flap to the



The skin however is discolored and

Stent mold covered the denuded area. One week later the mold was removed and healin. was found to be complete. The added ad

vantage of this method is that no change of dressing is required The etiology of the condition 1 not known alcohol often is mentioned and this patient admitted the use of wine daily for many years. The accompanying acne cleared up

fice were all negative. After operation there was no reaction whatever. The nasal processes of the superior maxille had become markedly everted so that the nose was broadened as well as flattened. It was first nece sary to fracture these inward by splitting through with a narrow chi el at the base. The incision



cribnform plate while carrying out the procedure

The airway is generally distorted with displaced fracture of the nose and the reposition may clear it. Often however corrective work must be done on the septum

Figure 7 shows a patient who was kicked in the face by a horse when he was a boy The nasal bones and septum were bully fractured causing blocking of one airway

At operation the septum was resected and the airway was established then the nasal because were split with a chisel as in the preceding case and the nose was moved over

These old fractures are often difficult of reposition and the deformity strongly tends to recur The splint should be worn at least three weeks and as it is not uncomfortable there should be no hurry to remove it

Figure 8 shows complete atresia of the nasal airway of one side due to injury The scar involved the upper two thirds of the vestibule of the right side of the nose and entirely blocked the airway with the exception of a pin point opening. The deformity would of course recur if the scar were merely dissected out therefore it followed that grafting of the denuded area with skin was indicated. To accomplish the grafting I devised the appa ratus illustrated. It consists of a cap splint on the upper teeth bearing a wire support much as in the apparatus designed for the ca e in Tigure 4. The wire however ends below the nose in an eye into which is fitted a binding post of the type used on electrical instrument hoard. The set screw holds in place another wire ending in a perforated plate Th

in two

holding the terminal wire for the other

When the scar was dissected out a model was made of the defect in dental modeling wax which had embedded in it the plate of the terminal wire. The wax was covered with a

was found to be completely successful. The



Fg 9 Pain t before a dishortly after operation for the rem all flump of the ore The final r sult is improved over this the postoperative well ghoused di

contracture in this case after 6 months has been negligible though it might be well to follow up with a vulcanite support to the

Figure 9 illustrates the now popular procedure of removal of hump of the nose. The result at the present time appears much better than shown in the picture which was taken very shortly after the operation when the still remained some evidence of the postoperative swelling.

Numerous operations have been devised for hump removal but I wish to suggest an operation which possesses several advantages. The approach is through an incision begun through the membranous sentum and brought out through the base of the columella columella is then retracted upward and a septum elevator passed up between the walls of the septum and over the bridge to the root of the nose As the operator is working in the middine the separation of the skin from the nasal bones is easily and quickly accomplished Then with either a long bladed nasal speculum or long thin bladed retractors the area to be attacked may be brought into view

The next step is the removal of a triangular section from the medial portion of the nasal bones with a narrow sharp chief. As the greatest hump occurs at the lower end of the nasal bones the base of the triangle will fall at this point. The width of the base of the





fully outlined by Esser in his article Rhino plasty without external skin incision! (Norm plastic hime Hautschnit!)

The case shown in Figure 4 illustrates a nose which had been deflected to the sude by an old fracture and which was straightened

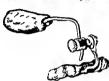
superior labiogingival sulcus. The method is

experience these old frictures after operation hive a great tendency to cause the nose to revert to the original deformity. The splint illustrated in detail in Figure 4c has severil advantages over head band splints plaster or metal splints. It consists of a metal cup splint for the upper teeth including, the housepads bearing a heavy wire ending in a

fort small size and the absolute control of pressure. The pressure can be directed accurately and potentially the spring is capible of any amount of pressure compatible.







Fg 85 Fig 8 C mplt tr of the sal rway f

with safety to the soft tissues. The nose may be easily inspected at any time by pulling back the spring. The splint is cemented to the teeth with dental cement.

This splint may be made with pres ure arms on each side if desired to support a recently fractured nose

As to the operative procedure in this type of case I prefer to split the mass bones or the massal process es of the maxille with a narrow clusted introduced inside the nose through small incision. The trauma is minimal and the control more accurate than when the nose is given a blow on the convex side. The latter method may merely crush in the nasal bone on that side without correcting the deformity of the opposite side and also one does not right he fear of possible fracture of the

DISADVANTAGES

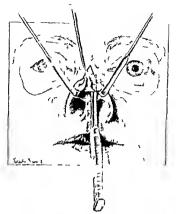
The disadvantages of the rasping operation for removal of hump are

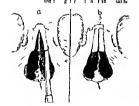
deformity

- unsightly
 2 The shredding of the periosteum and the
 scattering of bone cells tend to excess callus
 and return or even exaggeration of the
- 3 There is danger of tearing the nasal mucous membrane
- 4 The particles of bone which remain favor infection and may act as foreign bodies
- 5 In working through an incision within the nasal cavity infection is more apt to occur

ADVANTAGES

- The advantages of the operation illustrated
- r It is applicable to all types of humped nose as the bridge remains narrow and the reduction of the hump may be accomplished accurately
- 2 There is little if any tendency to excess
- 3 The nasal mucous membrane may be
- 4 The work is at all times under the operators eye
- 5 By avoiding the nasal cavities liability to infection is greatly reduced. The technique of the operation is shown in Figures 10 and 11 a and b.





triangle varies according to the size of the hump II necessary the upper birder of the septium is clusseled off. Finally the risal bones are fractured inward by grasping, them with a wide bladed hemostat and the tri angular bone defect is obliterated

tendency to excess callus formation. The columella wound a then thesed. The frac-

others are apparently hypernephromata mis

(sarcoma lipomatodes) is one of several van ettes of lymph glandular sarcoma which shows us the tendency of the cells to change themselves into fat cells by fatty infiltration This, change always takes place in only a limited numb r of the elements but the cle

o a y i in spite of the similarity to fatty tissue confusion with lipoma is prevented by the irregularity of the infiltration and by the fact that there are found very large and very small cells side by side and never unture to drops

Borst (1) refers to these tumors as follows By the term lipom; sarcomatosum or liposarcoma one understands (according to a Randile ch) a sarcomatous tumor of round cells in which the sarcoma elements have the tendency to become infiltrated with fat The fat infiltration is vers irregular and practically never leads to the formation of typical fat cells in many cells the fat infiltration is quite extensive in others only the smallest

the nucleus is pushed to the side and flat tened out. For this reason the size of the sarcoma elements is very variable. It is characteristic that the droplets in the sar coma cells are not united into larger drops of oil. Such lipomata anse from subcutaneous and intermusicular fatty tissue. Those sar comata which owe their fatty content to the fat that they grow in fatty tissue or in a lipoma must not be called liposarcomata. One must also take pains to differentiate fatty degeneration which is present in all sorts of sarcomata from the fat infiltration described above.

A number of tumors of this group have been reported and from these records it seems that the following description of the esential characteristics may be given Lino sarcomata arise in the same situations a lipomata principally in retroperitonesl and in intermuscular fatty tissue. They tend to be encapsulated but may extend locally and even metastasize They often are lobulated like Imomata and although the cut surface shows in general the appearance of a lipoma there is usually a more granular texture sug vestive of the abundant cellular content. His tologically they consist of round to somewhat oval cells with sharply outlined centrally placed nucles and slightly granular but more or less homogeneous acidophilic protoplasm The cells differ greatly in size due to the varying fat content. In the small ones with the homogeneous slightly granular cytoplasm there is no fat or fat only in the smallest of vacuoles. In the larger cells, the vacuoles are larger but fewer in number while the largest cells consist of several large acuoles separated by the intest protoplasmic strands often with the nucleus displaced to an eccentric position and occasionally some what flattened out With suitable stains it can be shown that these vacuoles have been filled with fat generally neutral fat. The relationship of these fat containing cells to normal or adult fat cells is not entirely clear but they are presumably embryonic storing up fat in their bodies in an attempt to dif ferentiate into mature or adult fat cells

No attempt has been made to collect a series of all cases of this 1 pp reported in the literature. Delachanal (4) in 1910 reported 3 22 other cases collected from reports many of them doubtful liposarcomata and gives a number of references to still more doubtful cases. Schramm (20) also in 1910 reports on the pathological histology of 1 case and reviews reports of 6 others which he discards as improbable liposarcomata. Comollé (3) in 1921 reported 2 cases of undoubted liposar comata Dr. Vallory has sent me a section of one case of liposarcoma the only one he hasseen 1 br. Ewing basseen but 2 such cases?

P to 1 mm

EXTRADURAL LIPOSARCOMA OI THE SPINAL CANAL

A CLINICAL AND PATHOLOGICAL REPORT

BY JOHN & CALDWILL MD FACS COOL AN

M VI CINNINGLE VID CI CI VIII

TNDLR the general description of lipo sarcoma one find in the hterature descriptions of several types of tu mors (r) lipomy xosarcoma and allied tumors (2) hoomata with areas of sarcomatous de generation and (3) true liposurcomata Of these three the first type is apparently the most common. The type was first described by Virchow (12 13) in 1857. He described a number of cases and in 1865 referred to them under the name myxoma lipomatodes ma lignum I or many years these tumors were suppo ed to represent the type of malignant fat tumors and are still so considered by In 1916 Robertson (8) collected 50 cases from the literature and added the description of a case of his own. He clearly recognized the histological character of these tumors and sugge ted that they be design nated by the term lipoma myromatodes

These tumors arise wherever lipomata are found but the reports show that the majority have their origin either in the retroperitorical tissues or in the fatty ti sues in the inter muscular septa particularly in the buttocks and thighs. They grow relatively slowly and tend to be encapsulated though they some times burst through their capsule. There is a distinct tendency toward local recurrence and metastasis is not rare. Of the si cases reported by Robertson 23 were benign 17 malignant and in 11 there was a question as to malignancy Some of them show well marked fully developed sarcomatous nodules in their substance and it was this tissue alone which had metastasized in some of the

Tumors of this category show three histo logical elements (1) fat usually adult fatty tissue (2) an embryonic type of fibroblast the cells being stellate in shape (3) a gelations semifluid material which has the

physical properties and staining reactions of

This last named element is the most essen tial feature of these tumors and is the sub stance which gives the name myxoma to the group. It lies in the interstices between the stellate fibroblasts and is also collected into larger and smaller spaces. The relationship between the fat and the mucoid material is still an obscure one It has been suggested (1) that the mucoid is degenerated fat tissue (2) that the fat is a product of degenerated mucoid trssue and (3) that the fat and mucoid arise simultaneously side by side from the same mother cell The relationship at any rate appears to be a close one in these tumors Other considerations however throw some doubt on the essential connection of fat and mucoid The my xomatous tissue occurs in situations free from fat as in the pure myxomata and in the myxosarcomata in these situations it is always closely related to the stellate type of fibroblast in the my volumenta it is associated with adult fat cells. For these reasons the term hooms to sarcoma seems an undestrable one for lipo sarcoma should be reserved to designate tumors made up of embryonal fat cells

The econd type of tumor found under the heading of liposarcoma 1 that in which an area of sarcoma is found in the substance of a lipoma. These are not true liposarcomata in that the tumor does not arise from the futly it sue but from the fibrous tissue stroma They are represented histologically as a rule by spindle cell sarcoma such as might arise.

course and prognosis as spindle cell sarco mata el enhere. In connection with these tumors it is necessary to point out another others are apparently hypernephromata mis

taken for sarcomata The third type or true liposarcoma was ap parently first recognized by Rindfleisch (7) who stated that the inomatous sarcoma (sarcoma lipomatodes) is one of several vari eties of lymph glandular sarcoma shows us the tendency of the cells to change themselves into fat cells by fatty infiltration This change always takes place in only a limited number of the elements, but the cle ments so changed are so striking and so large that one might easily suppose that the majority of the sarcoma cells have been changed into fatty cells. In spite of the similarity to fatty tissue confusion with lipoma is pre vented by the irregularity of the infiltration and by the fact that there are found very large and very small cells side by side and never uniting to drops

Borst (t) refers to these tumors as follows By the term lipoma sarcomatosum or lipo sarcoma one understands (according to Rundleasch) a sarcomatous tumor of round cells in which the sarcoma elements have the tendency to become infiltrated with fat The fat infiltration is very irregular and pract tically never leads to the formation of typical fat cells in many cells the fat infiltration is quite extensive in others only the smallest

the nucleus is pushed to the side and flat tened out For this reason the size of the sarcoma elements is very variable. It is characteristic that the droplets in the sar coma cells are not united into larger drops of oil. Such lipomata arise from subcutances and intermiscular fatty tissue. Those sar comata which owe their fatty content to the fact that they grow in fatty tissue or in a lipoma must not be called liposarcomata. One must also take pains to differentiate fatty degeneration which is present in all sorts of sarcomata from the lat infiltration described above.

A number of tumors of this group have been reported and from these records it seems that the following description of the essential characteristics may be given. Lipo sarromita arise in the same situations as lipomata principally in retropentioneal and in intermuscular fatty tissue. They tend to be encapsulated but may extend locally and even metastasize. They often are lobulated like lipomata and although the cut surface

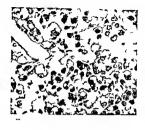
placed nucles and slightly granular but more or less homogeneous acidophilic protoplasm The cells differ greatly in size due to the varying fat content. In the small ones with the homogeneous slightly granular cyto plasm there is no fat or fat only in the smallest of vacuoles In the larger cells the vacuoles are larger but fewer in number while the largest cells consist of several large vacuoles separated by the finest protoplasmic strands often with the nucleus displaced to an eccentric position and occasionally some what flattened out With suitable stains it can be shown that these vacuoles have been filled with fat generally neutral fat. The re lationship of these fat containing cells to normal or adult fat cells is not entirely clear but they are presumably embryonic storing up fat in their bodies in an attempt to dif ferentiate into mature or adult fat cells

No attempt has been made to collect a senes of all cases of this type reported in the interature Delachanal (4) in 1910 reported 5 cases personally examined with synopses of 12 other cases collected from reports many of them doubtful liposarcomata and gives a pumber of references to still more doubtful cases Schramm (10) also in 1910 reports on the pathological histology of 1 case and reviews reports of 6 others which be discards as improbable liposarcomata Comolle (2) in 1921 reported 2 cases of undoubted liposar comata Dr Mallory has sent me a section of one case of liposarcoma the only one he has seen 1 br Ewing has seen but 2 such cases 1



Γg Ar facesth aob rad Je ary 93

Cinical report by John 1 Caldwell
The patient C 8691 a steamboat capta n 69
years of age and of very rugged and vigorous



the left a de was complite to pa temperat e and touch (seed agram Fig. 1) Reflates Upper abdominal present lower abdominal absent cre master a absent p i llar p es int and more active on the tight Achilles absort Bab ki a be t Im d a disgnosis of tumor of the cauda equin and advised e ploration.

and advised e ploration
The \text{Tay plate was interpr t d as neg tive but subsequent examination of the r cotge ogram revealed some iovolvement of the 3 d lumbar body.

Operat on January 23 1923 The incisio was made over the lumbar spines and upper sacrum

he noticed that he was numb at the end of the coc ryx On January 1 1023 he was unable to vo d and from that date until the day of operation he re quired catheterization

muscle graits over the bie u ng p

blood Wassermann was negat ve

I saw him on J nuary 20 nd made the foll w g findings No muscular atrophy o paralysis Anæs thes a rregular saddle shaped of greater a ca on



For Stromen fterf tion

the temperature reached 1046. It continued high with but slight remissions until death on January 6 The cause of death was ascertained to have been d e to infection of the operative field and ce ebro p nal fluid

Invasion of the cauda was manifested successively by pain involvement of the nerve supply to the bladder and rectum and cutaneous apasthesia

Path logical report by M M Zinninger etoss sp cim w

it as were removed the muscles separated and the surfaces were found covered with purulent e udate The laming of all the lumbar vertebra

about 4 inches of the cauda equina. At the upper end of the cauda lay an irregular tumor attached to the outer surface of the dura and enclosing the emergent nerves It had evidently been removed

this tumor was found growing from the fifth lumbar

recognizable. By chiseling and exploring the bone it was found that the tumor mass invaded the greater part of the fifth lumbar and first sacral verte bræ The m

sistency bral tissu

the bone

aud spones The body of the thi d lumbar verteb a was occupied by a similar mass which did not impinge on the spinal canal and was not contiguous with the tumor mass below Smea s from the exudate on the cut muscl and from the turb d fluid showed ma y staphylococci

The striking clinical features in this case are the following

1 Definitely fixed onset of the condition (the patient was positive in his statements that he had had no discomfort before Decem ber 15 10 2)

An extensive malignant tumor presum ably originating in the fatty tissue of the lumbar spine was symptomless until it en croached on the cauda

du ai but nerve roo from if

of the tur lower pole of the specimen there was so much shred ding of the tissue that the exact relations of tumo

o the tu nor On micro lated

The rapid development of the chincal symp toms gives striking testimony as to the rapidity of its growth. The tumor mass in the 3rd lumbar vertebra may be considered

division taking ; e faint pinkish color In the smaller cells it was almo t homogeneous but sightly granular. In the larger

re
n
section were found some areas of normal adult
fatty tissue. At some of these the tumor seemed to

filled with last did is orange color. In addition to the fat in the cells there vere some larger globules in the interstices between the cells not an unexpected finding considering the ploy mitvoid the tumor to normal fatty it size.

modern writers on the subject i.e. a tumor made up of embryonal fat cells. The presence of rather actuely dividing nuclei as evidenced by the piling up of chromitin and the obvious invasive and destructive character of its growth leave no doubt as to its malignancy been reported there. The presence of hips mata at this level in connection with spina bindia occulia is well recognized. A possible liposucoma of the spinal cord itself was reported many years ago (ri) but from the description it seems unlikely that it was a

true lipo arcoma

I ht expre my think t N C Toot of th
Dp rims t f thilgy f hit t th
b k d d d d gg st n d ls l h k d
m king ph t m crog ph fasect f th tum

PIBLIOGRAPHA
FORS D Lh d Gabrulte aded
W bd in 943
C twan U woehnling et pint al
Fibrol po-sa k m D utschem d W h chr 9 7
fi 530

5 Nov I C M3, 1po m trop nt Poc \ w\ k\ P\ th So 9 9 7 9 6 McC \ k Re ret 1po 5 m 1kd y \ \ X R s rch 0 5 \ u 25

7 Ripeter C. Lehbhdrpthlgach Ge blh 4thed Lp 875 8 I Ex II E Lpm my m tod J M

3 Ii

exe 5

t Am j 6 Won Mt H Myx m in m Lp m ttad Bikhn Whosch 9 o tlv1 3 3

A METHOD FOR THE LOCALIZATION OF BRAIN TUMORS—THE PINEAL SHIFT!

By HOW ARD C NAFFZIGER SAN FRANCISCO CALIFORNIA F m h D ce 1N 1 x 15 f ty U ty 1C 1f M d cal Sch

THE pincal shift as determined by \ ray examination will frequently localize a brain tumor. This method has been of great value in confirming opinions based on neurological examination and it alone has frequently made the diagnosis possible.

It has also resulted in widening the range of diagnosis by \ ray evamination Formerly the minority of cases of intracranial pressure yielded \ ray evidence of the location of the

other gross intracranial le ions which cannot be localized by clinical methods of examina tion alone is considerable. It varies greatly if one considers the length of time the case is studied. It has been estimated at various figures Dandy has made the statement that only so per cent of the tumors could be located with accuracy sufficient to guide the surgeon This is probably a low figure for the chinical neurologist Others have given much smaller percentages but it seems reasonable to suppose that in a short period of observation there will remain omething like 20 per cent which cannot be localized. In these additional diagnostic methods are required. We have found that by simple and safe means the number in this small and difficult group can be reduced

It is a matter of common observation at autops; that the portion of the brain in which a growth is situated increases greatly in volume. This is not only due to the presence of the lesion itself but to an increase in the fluid content of the herming here. To a less extent the brain as a whole become calematous. In uch conditions it is not uncommon to find the affected lening phere even one third larger than the opposite one (Fig. 1). The disclosules of the first and the properties of the properties

Shueller (1) refers briefly to the displace ment of the shadow of the pineal gland due to pressure from tumor or traction on the part

left. He concludes that there was contraction of the left hemisphere perhaps from softening and that the pineal was drawn to that side from scar. No autops, findings or confirmation of the diagnosis were mentioned.

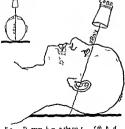
Under the constantly improving methods of roentgenography and particularly with the use of the Bucky diaphragm greater defini tion of structures is being obtained and more details are visible. Calcification in the pineal gland which occurs under normal conditions in a large percentage of individuals is often noted in lateral views of the skull. It occurred to us that the position of the structure might be of diagnostic value if variations in it oc curred with gross lesions. The pineal shadow is seldom seen in the anteroposterior or poste to anterior view of the skull. This is chiefly owing to the position in which the film is taken. Ordinarily the pineal shadow is ob scured by the accessory sinuses. When how ever the direction of the ray is parallel to a line drawn between the external canthus of the eve and the external auditory meatus the pineal shadow is seen to be projected well above the sinuses. We have found it more advantageous to have the patient in a face up position with the occiput against the film as the pineal gland is somewhat closer to the back of the head than to the front If with the head in this position (Fig. 2) the tube is carefully centered so that the central rays pass along the mid sagittal plane one can readily determine the relation of the pineal shadon to this plane Developmentally the nineal is a true mid line structure. There is httle to indicate that its calcification has any pathological significance 1 study of a large

Prese t li pa bef h mee g f h \ ad Sta W 1 1 oc ty Sep mb 3 9 1



Fig 1 Frontal section of bra tum with fee h bam rehage t t crease 1 I me of the h musph re a d the d loc t of the md1 et the ppontes d

cranial pressure and in the presence of a calcified pineal our cases have been studied from films taken as described. It has been shown in the presence of intracranial pressure that where the lesion is located in the right cerebral hemisphere the pineal shadow has been shifted from its position in the mid line toward the opposite side. The degree of nineal shift as we have termed it varies considerably A common shift is a distance



fth h d D gram h w g the po t



Fig. 3 N smal ak ll A true post ro- t n r p 1 c how ag th t and p lin the midle | taho e th fo tal uses

of about 1 centimeter (Fig. 4) We have however found it di placed away from the lesion for a distance of 2 5 to 3 centimeters (Fig 5) When the gross lesion is on the left side the pineal shift occurs to the right. The shift has been present whether the growth has been frontal parietal or occipital With lesions of the posterior fossa or base which produce a high degree of intracramal pressure from an internal hydrocephalus the lateral ventracles both right and left have been uniformly diluted. The pressure is so uni formly distributed that the mid line structures have not been distorted and the pineal retains its true mid line position No shift occurs These experiences have been true in 15 cases proved by operation or autopsy

ILLUSTRATIVE CASES

The following illustrate the pineal shift in cases with obvious signs of localization

Case I I eat shift away from tumor (F g 4) E W Um ers ty of C I forn Hospital No 45657





Fg 4 Showigpial hitawy from the dof Fem 1

Unoked discs and stupor vere present. Neurolog. ical examination showed no involvement of cranial nerves but the usual findings of a hemiplegia Localization of lesion presented no problem but marked shift of pineal shadow to right was of niere t

CASE 3 No shift of pineal shadow with internal hydrocephalus F \ University of California Hospital No 45892 Female age 27 Acoustic neuroma p oved Tumor removal This patient gave the characters tie chronologic sequence of symptoms with typical findings. The fifth and SM.

cu by ventricular puncture The \ ray report noted-Pineal shadow in mid line No shift



of the method the following is one instance

dis s and evidence of intracranial pressure. From the histo y his condition was presumably due to brain abscess His state prevented perimetric fields sensory tests etc. There was a story of difficulty in the use of the left hand. It proved im possible pattent

ment of suth a l

previously taken in the usual manner gave no localizing information. It was noted honever that these plates showed a calcified pineal. The

Reviews of a considerable number of \ ray plates have been undertaken with a view to determining in just what percentage of in 4 4 1 1 ...

to rec

roentgenogram itself. The percentage of calcified pincals is of course much decreased if any large number of children is included. In patients of greater age, a larger percentage of positives is obtained. The following figures are based on a study of 15 consecutive cases.

Total kulls
Pineal calc fi d i

1 Ago C so 20 y rs l ag 50 wer cal field o 55

In general it has been found that in some thing like 50 per ecut of cases the pineal gland is sufficiently calcified to be of diagnostic value. The two essential for the use of thi method of diagnosis are of course first that there I sufficient pineal calcification to east a shadow and second that intracramal pres sure is present. It a doubtful whether any considerable dislocation of the gland will occur if there is not sufficient pressure to give intracranial signs. If however intracranial pressure is present as indicated by papillitis or choked discs or not ably in more acute cases by an actual use in the pinal manom eter reading it offers great help. Subacute and acute conditions, such as abscesses and humorrhage have given the characteristic of 1 1 11 lo shift and pe

shadov being made from lateral views of the skull to

ther observation and study may enable us so to standardize the lateral roentgenograms of the skull that we can detect an antenor or posterior or an up and down deviation of the gland from its normal position. It is also possible that if such conditions as transient ordema or swelling of one half of the brain occurs this method may be of value in detect

Inasmuch as about 50 per cent of all cases showed calcused pineals and possibly 20 per cent or more of the intracranial gross lessons cannot be localized by clinical methods alone this method will give us localizing information in one-half of these.

CONCLUSIONS

When the pineal gland is calcified (in about 50 per cent of all skull) its portion gives diagnostic information in cases atthe intracental pressure. The shuft has been found with brain tumors brain ab cess and in certain cases of brain swelling consequent union a viscular block.

A position of the pineal to the right of the mid samttal plane indicates a left sided lesion above the tentonum

A position of the pineal to the left of the mid sagittal plane indicates a right sided le ion above the tentonium

A position of the pineal in the mid sagittal plane in the pre-ence of intracranal pressure indicates equal pressure on the two sides. In the chronic form of intracranal pressure as due to tumor or abscess this means internal

-- + mhd

REFERENCE

Roe Ig n D ga f D e ses f the H d Tra sla 1 by Stocks g St Lo 5 C V No by 9 8 Chap II p 56

A PLAN FOR THE EARLY DIAGNOSIS AND MANAGEMENT OF PRIMARY PAPILLOMA OF THE URETER AND LIDNEY PELVIS

A Case Report of Each

BY ROBERT V DAY M.D. I'LES FRED D FAIRCHILD M.D. AND HARRY W. MARTIN M.D.
LOS ANGELES

W 1/) C 1 cm/)

PRIMARX tumors of the Lidney pelvus and especially of the ureter are very tree Following back the literature to the first cases and up to the time the cathetening cystosopie was perfected one finds that most were discovered at necrops. The classic theses of Albarran in 190 and 1912 and also those of Israel have given great impetus to the study of these diseases.

OCCURRENCE

Albarran (r) in 1902 compiled to case reports of tumors of the ureter—2 of them his own In 1921 Judd and Struthers (8) reported a carcinoma the only r occurring in the Machine Compiler.

case reports including various histological types. Aretschmer (g) in 19 4 collected 34 defautely malignant on section making alto gether with the authors case 56 34 of which were papillomata. No other clinic or observer except Albarran Suter and Beer has reported more than r case of primary ureteral neoblasm.

Primary papilloma of the kidney pelvis is a little less rare In 1920 McCown (11) com piled 48 cases 10 American and 38 foreign Spiess (r8) in 1015 in an extensive review gave abstracts of 76 cases of papilloma and 44 solid tumors of the pelvis Gilbert Thomas (20) compiled 248 cases of tumors of the Lid ney pelvis or ureter a large percentage of Thomas were metastatic from primary growths in the bladder prostate or other organs and the collection is not limited to any type of neoplasm Two thirds of these were previous to 1008 and mostly necropsy case Approximately 16 additional cases of papuloma have been described in the Amen can journals by Thomas (20) Beer (3) Stevens (10) Miller and Herbst (13) Ocher

after unscrambling the duplications more than 100 over 25 of them American Doubt less scores have gone unreported and many missed altogether. For example one of our colleagues in Los Angeles (Rosenkaraz) did not report his case (number 244-077 Los Angeles General Hospital).

ETIOLOGY

In a few cases stone seems to have been a factor in the causation of papillomata in both the ureter and kidney pelvis Leuco plaksa or long standing arritation and anflam mation are at times probably factors. The nationts at other times have been workers in dies and chemicals Goebel (7) reported cases apparently the result of bilharzia or ganisms One of us (Day 6) has reported a case of a young man reared in South Africa who came to the hospital for acute retention of urine due to blood clots in the bladder Routine examination of the upper disclosed the ova of bilhargia The cystoscopic picture was that of a classical benign papilloma near the left ureteral meatus. Bleeding from the papilloma was observed and the papilloma was destroyed by fulguration at that sitting the patient subsequently being treated by intravenous injections of tartar emetic with a clinical cure Cathetenzation of the ureter later disclosed no ova or sign of involvement higher up

MALIGNANCY

Papillomata predominate numerically over solid growths in both the ureter and kidney pelvis. They are distinctive in that they are easily transplanted by prolonged contact or inoculation to other portions of the mucosa thrace whenever a papilloma exists in my



Fig t Roe to gram showing calcif d c scous mass in i er pole it ht kidnes

part of the urinary tract implantation metas tasis is likely to occur in any portion of that tract di tal to the primary seat Conversely il there occurs a metastasis above the seat of the primary growth it usually comes about through the lymphatic channels. The fa vored spots are the points of anatomical nar rowing in the ureter or in the bladder near the preteral ornice. The prethea is not immune. The literature shows that even the histologically benign types have almost in variably developed local malignancy and metastases following operation unless the surgery has been most thorough and com prehensive. I arely they are very slow grow ing perhaps existing more than 10 years

CASE REPORTS

CASE Mrs N T age 54 pats nt of one of us (Faschild) w referr d for urologic le amination



Fig z Right k in y z d upper 4 ce t m ters f ureter split he ung hydro phrosi a dl rg p p llom t amass in pper ret (C >)

cl ar de cription of the method; after which the bleed og d sappeared with compil t and p rmanent ce sation of menstruation. She has never passed any gravel or ston s and zever had di suria or any thing chineally indicating bladder or kidney dis turbance until 6 months ago. In July 1921 for

t not and there was n tendern s on pr ssure over

١

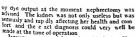


Fig 3 Pyelog m sho ang fill ag defect p p ll ma f th kilney pel is b f l te sec adary changes ha e occur ed (C se)

feebly from this side at prolonged intervals. The bladder was otherwise normal. The right ureter could not be catheterized for more than 4 mills

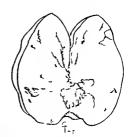
there was an output of 9 per cent in 15 minutes

was n



January 5 1924 Admitted to Methodist Hos pital (No 25309)

January 7 1924 Usual incision for nephrectomy



Fb 4 Spitked y with p pllom 1 the low p rt i the pel (C 2)

meters of ureter (Not ithislanding the caseation the kidney was di tinctly not tuberculous) February 1 1924 Left hospital after an unevent ful convalescence

Pathologist's report A piece of ureter about 4

the pelvi but are not attached. In the lower pole

Date ons Malagnant papilloma of the ureter with hydrone/pross The pain and hermaturia were pomptly and completely relieved and the paintent health has so markedly improved that up to now she has not consented to another operation for removal of the entire ureter. The mild degree of hermatura associate the united that mass of I table as the contract of the contract

Case 2 J J T age 60 weight 160 pounds con sulted one of us (Day) July 26 1923 At Chicago in 1913 the patient was taken with a severe colic like pain in the right lumbar region for which it was

being covered by several layers of epithelum of cubo dal type the cells at the t ps of the papillæ showing marked asymmetry and num ous mitote figures. Section from cortex and outer medulia

aware of passing a calculus. In June 1922 he was giv n a thorough e amination by an internest in cluding ga tro intestinal stu lj. but the results of this examination vere negritive. In November 1922 and December 1922 he had attreks of colic with plattle blood and nour requiring him vi l most

5 centimeters size of port 24 centimeters screen ing 3 millimeter of copper and 2 millimeter of aluminum—2 treatm nts chiftont a d back

quent int real th reafter up to the date of his

A pre-operative diagnosi of malignant tumor of the kidney was made in Case 2 but its pripillomatous character was not determined. Studying the pyelogram in retro spect we admit that its papillomatous na ture should have at least been strongly suspected even if not difinitely diagnosed. At the time it was surmed that blood clots in the kidney pelvis were a large factor in causing the filling, defect (Fig. 3).

SYMPTOMS AND DISCUSSION

1 Papilloma of the wreter Hamatuna 1

tally obliterated outline itel

vill may be found in the unne especially after the trauma incident to uneteral cathe terization a point on which Mbarran laid great stress. In 7 of the recorded cases of McCurthy (12) dragnoss was aided or con firmed by the finding Sometimes there is an associated bladder papilloma due to the engrafting of bits of tissue broken off from the primary tumor above and carried down with the unne. Bloody urine may be seen

Hydronephrosis occurs in about 70 per cent In an analysis by Kretschmer (9) of his 34 collected cases it was present at least to some degree in all but 9 and in these there was no notation. It was not present in Culver s (5) case but here the papilloma was very tiny There is therefore likely to be a palpable mass under the ribs hydronephrotic but not neoplastic The ureter is often obstructed by growths at various levels which at times prevent introduction of the catheter beyond those points McCartby (12) mentioned obstruction in 8 cases catheter often produces frank bleeding from the affected side even in the intervals be tween attacks of hæmaturia. If situated low down the tumor can sometimes be felt through the rectum or vagina (1 and 8) as was noted in the case of Judd and Struthers (8) and a few others

Pain is usually concomitant with obstruc tion and is usually persistent dull and dis tressing and in a few of the cases outle pro nounced in the hip thigh or sacral regionroot pains At times however it is of the renal colic type due to some sudden prac

lyelo-ureterograms apparently have been infrequently made and the only examples found by the authors in the literature are those of Quinby (16) and Kretschmer (0) There is apparently nothing characteristic in either of these except the tendency for the catheter to take a decided curve to the outer side just above the pelvic brim

B Papilloma of the renal pel is Tumor cells or bits of villi in the urine unilateral hematuria bladder papilloma and tufts protruding from the ureter are quite as common as in the ureter cases

These soft villous growths in the polvis bleed very readily hence hamaturia is usu ally very early and rather profuse Remissions may occur either from the cessation of bleeding or from obstruction This obstruc

containing clots or bits of necrotic growth

phrosis) In the early part of the century before the days of pyelography and kidney functional tests Albarran and Israel were able to diagnose pelvic papilloma on two findings viz (1) unilateral hæmaturia and

pain The obvious reason for this type of - 11 L Law-

in the urefer

Fenwick s sign is suggestive but not pathog nomome of tumors of the pelvis One of us (Day) has recently observed it in a patient and it was the only cystoscopic or other object tive finding except the voiding of a few clots the day previous that led to ureteral cathe terization and pyelography and a diagnosis of solid renal tumor verified at operation Fenwick himself suggested that it was the result of trauma to the meatus and intra mural portion of the ureter from the forcing out of blood clots These clots sometimes tesemble angleworms in form and size and may be of great length Morns (14) observed a specimen 29 inches long. A comparative

I yelography is most important There has been a noticeable absence in the textbooks and most of the periodicals of pyelographic illustrations accompanying case reports H P () U omas

(10) their nany

had dilhoulty in cathetenzing the ureter or getting by an obstruction Others found

L 13 L ...

marked filling defects due to secondary changes (dilatation etc.) not characteristic of the filling defect due to the papilloms it self In still other patients the mahenance was so far advanced that pyclographic evidence of the primary site or pathological type was covered up hence the amazing dearth of illustrations Ockerblad's (15) patient was nephrectomized perhaps at the earliest stage of any on record-almost a microscopic (Reading the pathologist's report both nucroscopic and macroscopic one rather feels that this was a case of carcinoma but not papilloma as he termed it) The pyelogram was practically normal as stated by Ockerblad and observed in the publication In the pictures by Thomas (20) Landon and Alter (10) and Colston (4) the primary growths in the pelvis are overshadoned by secondary changes Herbst s (13) and espe cially the authors (Fig. 3) are apparently characteristic of pyclograms made after the papillomata had attained definite proportions but before dilatation and other secondary changes had taken place and they are there fore of e pecial interest. Braasch in discussing McCown's (11) paper says When there is no tumor of the bladder the diagnosis be comes more difficult. In the first place of the

elongation of one or more calyces lt must be remembered that partially organized blood clots in the renal pelvis may cause an outline simulating filling defects

growth is large enough it may occlude the

In other words pyelo ureterograms must be studied in conjunction with all the other chinical cystoscopic and laboratory data in order to make correct inferences and arrive at a reasonable pathological working diagno

DIFFERENTIAL DIAGNOSIS

An early diagnosis necessitates that the practitioner in every case of hæmatura no matter how innocent it may appear resort to adequate urological procedures to determine if possible the precise source of the bleeding and the pathology behind it. The patient

recurs which may not be for a long time in early cases. The only exception to this rule is when the terminal humatura frequently accompanies an obviously acute gonorihoral prostatitis or when grave disease elsewhere contra indicates any minor procedure.

If on cystoscopic examination papilloma of the bladder is observed we must always bear in mind the possibility of these being secondary to the same type higher up. Papilloma of the bludder is honeier a relatively common disease and chinical expensee has shown that it is usually primary there. If a tuft of papilloma is protruding from the ureleral ordice or there is observed a um lateral harmstran or if there is other climical evidence of unilateral kindney involvement.

reliable functional test

In both these conditions two of the three cardinal symptoms of all renal neoplasms namely hamoturia and pain are fairly constant. The third palpable tumor is rather

in pelvic cases hydronephrosis plus hæma tonephrosis. In the much more frequently encountered parenchymal tumor we palpate the growth itself for here didatation of the pelvas is extremely rare unless there was a previous hydronephrosis a small stone or other obstruction or necrosis, has taken place Hæmatura is usually more profuse in pelvir papilloma than in tumors of the ureter renal parachyma. In the ureter it usually occurs early but is generally muld in character while in solid tumors of the kidney the bleeding is more likely to be a late development often with long periods of remission

In the so called essential or symptomless hæmaturia bleeding is more or less constant usually with no clots and urological examina tion reveals a normal function and a normal

pyelogram The absence of frank pus in the urine especially in the early cases has been pointed out by many writers This plus cystoscopy and examination for tubercle bacilli is a dis-

tinct aid in ruling out renal tuberculosis Stone is an occasional coincidental finding in either of these diseases and is likely to be

misleading If ureteral cathetenzation comparative functional tests and pyelography in a pa tient with unilateral hæmaturia fail to demon strate evidences of a pathological condition they should be repeated at reasonable inter

vals if the hæmaturia persists

Correct clinical diagnosis has been the exception in tumors of the ureter and in the pelvic papilloma the percentage has been strikingly small. We must therefore be satis fied in perhaps the majority of cases with a working diagnosis. Adequate and compre hensive urological study (modified necessarily by the exprencies of the case) based on micro scopic utinalysis cystoscopy comparative hdn (n

at least when to operate, but a final diagnosis must often be made at the operating table The prognosis will depend on how early and how ngid has been our examination and how attentive and systematic our investigation at operation

TREATMENT

To brand these cases as instances of malig nancy is the first principle in their therapy Nothing short of complete nephro ureterec tomy should be considered

Resection of the ureter for a tumor low down and re implantation into the bladder or gut has gone into the discard since the routine use of pyelography and modern Lid ney functional tests and its employment is justified in the most exceptional case only since the hydronephrotic kidney is badly empoled at best

McCarthy (12) in discussing tumors of the ureter says the first encounter with a case of this type will bring disaster to both physician and patient if the physician fails to profit by the experience of previous ob servers Thus statement is nearly as true of tumors of the kidney pelvis. There has been a sufficient number of cases reported in detail to permit some conclusions. While all writers are agreed that a primary uretero nephrectomy is the ideal operation yet in ureteral cases it has been done but six times by six different operators and in about the same number for pelvic papillomata. There have been valid reasons for this First cases base been few and the pioneers had to learn through hectic experience second so many times at nephrectoms for tumor the kidney is not split and carefully examined until closure is made as happened in Case 2 Third the patient's condition is often deemed not fit for the additional surgery at the mo ment When nephrectomy is done for tu

- mond alf ad

me of h 1 le

in the Lidney even then ureterectomy is advisable Culver (5) had to remove a ureter which contained three small papillomata several weeks after a nephrectomy done else where the Lidney removed showed nothing to account for the hæmatuma A uretero gram made just pnor to the ureterectomy was negative because the growths were so tiny According to Scholl (17) Derewenko opened the kidney and explored it digitally but found no growth however 7 months later nephrectomy was necessary because of severe bleeding Four papillomata were found in the renal calyces Obviously palpation was not sufficient as it would not have been in the authors case (Case 2)

Ureterectomy is quickly and easily per formed through a comparatively small addi tional inci ion and with little or no added n L if done at the me m

7

8

thelioma sarcoma carcinoma or other solid tumor of the ureter such as that in Oumby s (16) case It is only in the lite stages of papilloma that the outer coats of the prefer or the peri ureteral tissues are involved. If the operation is difficult by reason of a large tumor infiltration and adhesions the opera tion will probably be useless. On the other hand secondary ureterectomy is likely to be a rather difficult operation which requires a long incision and entails much difficulty in dissecting out the upper ureter from the scarparticularly so if radium or deep \ ray has been used The method of Beer (3) should be used if a pre operative diagnosis of papilloma has been made, or the uniter may be severed with the cautery between ligatures and ure terectomy performed if after splitting the kidney papilloma is discovered. It may be and often is necessary or advisable to re move a section of the bladder surrounding the ureteral meatus. All growths and recur rences in the bladder should be dealt with appropriately by d Arsonval current through the cystoscope or by suprapuble exposure after the high frequency methods of Corbus or MacGowan or by the Percy cautery Lucision radium and deep a ray have for the most part been failures Better results with less secondary fibrosis in the bladder would probably have been obtained by the methods above mentioned

CONCLUSIONS

- r When a patient has hæmaturia or any other symptom likely to be of renal origin his physician should not be content until he discovers first the primary source of the bleeding and second the pathological na ture and extent of the lesion behind it if it is reasonably possible by an adequate urological examination
- Thorough urological examination may not result in an absolutely accurate patho logical diagnosi but in a general way it does tell the surgeon what to do and notifies him to look for the unusual and unexpected as well as the every day pathological findings

Primary nephro-ureterectomy offers the patient the maximum chance of complete cure and a two stage nephrectomy and ure terectomy should not be necessary in an in creasingly larger percentage of cases if a few umple rules are observed

4 In the removal of a neoplastic kidney or if there is suspicion of any kind of tumor solitting and examination of the kidney should be made before closure

REFERENCES

- ALBERTAN J Ad nome de lu et e extrepst a gu sison B il et mém, Soc de chi d Par no Ad nome de lu et e extrost n
- 833-844

 ASCHAR I W Francey tumors I the ret r S rg Cypec & Obst pre rrsv 760
 3 Bers Lowin Nephro-uretere t my I Am M Ass
- of les 1 1 76
 4 Colsto J 1 C Th value I pyel graphy the di gnosis of neoplasms of the kid ey J Urol
- at v 67 87 CEL Et Blank P pill ms of the urete I Urol
- 6 Day R \ Bill rz ss Surm Gymer & Ob t ro
- tss meet

- IRR 603-6 4
 McCon P E P pilon to s ep theloma I th
 E dney pel is J Am M Ass 92 Exrv 119
 MEERRE LOUISE H and McCarrer J F Primary carcin ma fithe reter J Am M Ass 19 3 Ixesi
- MILES E M and HERBER R H P p llary pathe Im of the kidn yplus J Am M Ass is i
- 98
- 1 VORUS H S speal D seases I th Kudaey and
 Lett Incl dung Inj nes, Mall rm u as and
 Vispla em t Lendon Cassell 00
 5 OCCERRIAN N F Early p Pl to of kidn y pelva
 Sung Clan N 4m 923 b4
 6 Q L. W C. Tumors primary the uret J
 - Urol g 1 439 men t tuptos

THE EFFECT OF GENERAL ANÆSTHLTICS ON THE ORGANISM AS A WHOLE!

BY WILLIAM DE R MACAIDIR MD CHAPES HILL NORTH CAROLINA K 52 Res. hP feess IPh ma l gr U ty in th Ca l na

IN studying the effect of general anaisthet ics when used on laboratory animals and also when these substances are employed for clinical purposes there is a tendency to concentrate our observations on certain definite systems or organs of the hody and not to consider those changes of a more general and fundamental character which the an asthetics may induce in the organism as a whole Both in the laborators and operating room we study with a variable amount of care and interest the effect of these substances on the cardiovascular respiratory and renal sys tems and frequently ignore those changes which the anasthetics may induce in the physicochemical state of the organism by producing changes in osmotic pressure body temperature and in the acid base balance of the blood

The following study of the effect of ether on the acid base equilibrium of the blood in nor mal animals of different age periods is a continuation of work previously undertaken in this laboratory (* 2 3 and 4)

THE STABILITY OF THE ACID BASE EQUILIB RIUM OF THE BLOOD IN ANIMALS OF DIF FERENT AGE FERIODS WHEN AN ESSUET FED BY ETHER

Twenty six normal dogs have been em ployed in this series of experiments. The age of the animals has varied from 4 months to 17 years and 7 months The animals were kept in metabolism cages fed on bread and scrap meat and given 250 to 400 cubic cents meters of water by stomach tube twice a day The cage or catheterized specimens of unne were examined qualitatively each day for al bumin glucose and diacetic acid Centrif ugalized specimens were examined for tube The phenolsulphonephthalem test for kidney function was determined by the method of Rountree and Geraghty (5) The reserve alkalı of the blood facid base R db I th Southern Amorana f a

balance) was determined by the method of

Marnott (6)

In these animals of different age periods with one exception the unit was normal The phenolaluphonephthalen kidney, test was normal and showed an output of the dye in a hour periods for the respective animals that vaned from a minimum of 77 per cent. The reserve alkalt determinations of the blood vaned within the normal readings of 8 og to 8 ig. One of the animals of the senes 7 years and 8 months old showed on several occasions a trace of albumin in the unine. There were no ca is The elimination of the phthalen was 63 per cent. The reserve alkalt of the blood was 8 it.

I rom these observations the conclusion appears clear that in normal animals of such wide variation in age the acid base balance of he blood.

one wh

chemical evironment is kept at the normal point to aid in the proper functioning of the various organs and systems of the body

The 26 animals of the senes were aims thetized by either for a period of a hours. A cannuls was placed in each ureter in order to obtain a record of unite formation. The reserve silkal of the blood was determined at the commencement and termination of the exprements. One cubic centimeter of a solution of phenolsulphonephthalien was impected into the muscles of the thing and the output of the dye determined at the end of a 2 hour period. The results obtained from the use of either in these animals of different age periods have been as follows.

The young animal and adult animals up to between 2 and 3 years of age have failed to show during the period of anesthesia any marked redu tion in unne formation. The flow of unne in the different animals have also drops per minute. This

K d b 1 Ch Southern Amocustso f A

h as Much gto DC \ mber 1 0 5

unne has not contained albumin or casts. The chimnation of phenolsulphonephthalen during the period of anisthesia has shown only a slight reduction from the normal chimins to not fit he die prior to the anisthesia. The animal of Experiment 7 had a normal chimins to not fit he die before the unesthetic of 73 per cent. During the anisthesia it was reduced to 60 per cent. The re-crealth of the blood in three young and adult normal aminals has remained unchanged during the period of anisthesia and has varied from 80 to 18 15.

A study of the change developing so the old moral animals dogs varying in the fold of the first part o

The animal of Experiment 21 6 years and 4 months old had a flow of urine of 11 drops per minute. At the end of the first hour of the anæsthesia the animal had become anuric and remained anune throughout the remaining hour of the experiment.

In the older group of animal there has not only occurred a marked reduction in time formation with the appearance of ilbumin and casts in the time and more rarely directed and but the chimination of phenol ulphone phthalem has undergone a sharp reduction in output The animal of Experiment to had

surgical anasthesia and before urine forma tion is reduced there may occur a decrease in the reserve all all of the blood By the end of the first hour of the anasthesia there has de veloped in all of the older group of animals a marked disturbance in this physicochemical state of the blood The animal of Experiment 16 had a normal alkalı reserve reading of 8 1 At the end of the first half hour of the anasthesia the reading was 7 05 at the termina tion of the experiment 78 The animal of Experiment 21 had a normal reading of 81 At the end of the first half hour of the expen ment this was reduced to 78 and at the end of the experiment was 7 65 There has been a definite relationship between the time and degree of reduction in the reserve alkali of the blood with the amount of urine formed and the ability of the kidney to eliminate

phenoisulphonephthalem

The point of definite interest and significance in this series of experiments is as follows

cance in this senes of experiments is as follows

Puppies and young soult animals of the
senes were annitherized with ether for a 2

In 1co

chemical state of the blood appears stable and difficult to influence by an saxishetic Such animal during the aniesthesia continue

duced

Adult dog 4 years old and the old am mals of the series when anorsthetized by ether for a similar period of 2 hours show that the old organism has an acid base balance of the blood which is not stable and which can be easily reduced by the use of such an anax

evidence of injury from the anaesthetic has consisted in a disturbance in the aud base balance of the blood he early as 15 minutes following the establishment of a state of

and more rately material and ton of phenoisulphonephthalem is greatly reduced or present in the unne as an indeterminant trace

The experiments show that ether is more touc for an old organism than for a young or

ganism This toxicity is first expressed by the angesthetic substance inducing such a change in the physicochemical state of the blood that one organ at least the kidney is furnished a blood of such altered composition that it fails to functionate in a normal fashion

It would appear that prior to the use of an anasthetic in an aged patient the organism should be protected against the anæsthetic by the use of a diet rich in carbohydrates and

by the judicious use of sodium bicarbonate in order to maintain during the anæsthesia a normal acid base equilibrium of the blood

REFERENCES

MACNIDER WAS DE B J Exp Med 917 XXVI I 2 Idem J Exp Med 917 xxvi 19 3 4

THE LEFT SIDED ABDOMINAL ABSCESS AS A COMPLICATION OF APPENDICITIS

By CARL NATHER M D AND ALTON OCHSVER A B M D CHICAGO ty 12 sch Z b Sw seri d P fesso Claum t D ect F m th Surg! 1Cl fth U

TN studying the usual abscess formations in cases following appendicates one is struck with their manifold manifestation Aside from the subphreme abscesses which are located above the transverse colon one finds the following abscess types within the ab dominal cavity

the

p to

lateral to excum and ascending colon in the iliocacal fossa and separated from the ab dominal cavity medially by the omentum and small intestine. This is the most common of all abscess types and results from a laterally located appendix (Vogel Senechal)

Abscesses similar to the first type but located medial to the execum and in close relation to the bladder and the antenor ab

dominal wall

3 Ab cesses as in type two located medial to the excum but with no relation to the an terior abdominal wall. The walls of the ab scess are made up of adherent loops of intes tine and omentum Both forms of type two and three follow cases in which the appendix is medially located

4 The posteropanetal type located as the name signifies posteriorly and above in the lumbar region with no relation to the iliac fossa. The appendix in these cases is usually located postenorly and above the cecum

The n 1

resulting abscess is found in the cul de sac of Douglas

6 The tarest of all abscess types in cases following appendicutes is the left sided ab scess which is found especially in children Sprengel Wolff Brunn Giertz Vogel and Fromme have observed this condition but comment upon its rarity. In the course of 4

scess were observed

Because of the similarity between many of the cases we have chosen the few following ones as examples of this condition

CASE I K E 100 17 v re A h

1830 1920 (general pento ly and below pendectomy closed withou Fowler's post tlear fan mob postoperative

unne has not contained albumin or casts. The elimination of phenolsulphonephthalein during the period of airesthesia has shown only a slight reduction from the normal elimination of the deep prior to the airesthesia. The animal of Experiment 7 had a normal climination of the deep before the aimesthesia it was reduced to 60 per cent. The reserve alkali of the blood in these young and adult normal aim mals has remained unchanged during the period of airisthesia and has varied from 80 to 81.6.

Soft 0.815
A study of the changes developing in the old normal animals dogs varying in age from 4 years to 17 years and 7 months have been in striking contrast to the results outlined for the younger animals. In all these animals after 1 hour of surgical aniesthesia there has occurred a marked reduction in unne formation or an animal has been established. The animal of Experiment 16 7 years old had at the commencement of the experiment a flow of unne of 13 drops per minute. At the end of the first hour of the fursthesia the flow of unne was reduced to 4 drops per minute. The unne contained both allumin and casts.

The animal of Experiment 21 6 years and 4 months old had a flow of urine of 11 drops per minute. At the end of the first hour of the animal had become numer and remained anume throughout the remaining

hour of the experiment. In the older group of animals there has not only occurred a marked reduction in urne formation with the appearance of albumin and casts in the urne and more rarely diacetic and but the elimination of phenol ulphone philalein has undergone a sharp reduction in output. The animal of Experiment of bird a normal elimination of the dye of 71 per cent. During the 2 hour period of the anisathesis the total output was 21 per cent. The animal

surgical an'esthesia and before urine forms tion is reduced there may occur a decrease in the reserve alkalı of the blood By the end of the first hour of the anasthesia there has de veloped in all of the older group of animals a marked disturbance in this physicochemical state of the blood The animal of Experiment 16 had a normal alkalı reserve reading of 8 1 At the end of the first half hour of the angesthesia the reading was 7 95 at the termina tion of the experiment 78 The animal of Experiment 21 had a normal reading of 8 r At the end of the first half hour of the expen ment this was reduced to 78 and at the end of the experiment was 7 65 There has been a definite relationship between the time and degree of reduction in the reserve alkali of the blood with the amount of unne formed and the ability of the kidney to eliminate phenolsulphonephthalem

The point of definite interest and ignificance in this series of experiments is as follows. Puppies and young adult animal of the

series were anasthetized with ether for a a

chemical state of the blood appeals slid and difficult to influence by an anxisthetic Such anim! during the anisathesia continue to form a unne practically normal in amount and normal in composition. The elimination of phenolsulphonephthalein is but slightly re

duced
Adult dogs 4 years old and the old am
mal of the senes when annesthetized by other
for a similar period of 2 hours show that he
dol organism has an and base balance of the
blood which is not stable and which can be
easily reduced by the use of such an ames
thetic substance. When such a reduction has
been effected in the reserie a likah of the blood
of such animals there develops a reduction

ovidence of injury from the anæsthetic has consisted in a disturbance in the acid base balance of the blood. As early as 15 minute following the establi hieror of a state of

tion of phenolsulphonephthalem 15 greatly re duced or present in the unne as an indeterm nate trace

The experiment show that ether is more touc for an old organism than for a young or

has been advanced by Rotter and Sprengel Sprengel also believes that in those cases in which the appendix is located within the true pelvis there may first result a pelvic abscess with direct extension into the left side of the abdomen after the pelvis becomes filled

A last possibility exists in those cases of

very seldom

According to their location abscesses on the left side of the abdomen are divided into two different forms First the usual form which has the same location as an abscess on the contralateral side of the body in the right ilio inguinal region It is bounded below and laterally by Poupart's ligament and above and medially by adherent loops of intestine (Case 4) This lower form of abscess formation is not to be confused with an abscess within the pelvis An intermediary form is however possible A lelt sided abscess may extend into the true pelvis or a pelvic abscess above into the abdominal cavity. In those ca es where a swelling is palpable in the rectum and a tumor also in the left lower quadrant one can only determine with certainty the presence of one or two abscesses by draining one Second the unu ual form which is located at a higher level usually in a line connecting the two anterior that spines (Case 3) This form be cause of its position is easily differentiated from absce es in the cul-de sac of Douglas

Anatomically the left sided abdominal abscies is christerized by its tending, to approach the antenor abdominal will is demon trated by Sprengel. This explains in all probability the reason why these abscesses peculiarly do not grey vitate into the pelvis even when fracted expectantly. Even when treat ment with Fowler's position is immediately instituted affer the appendectomy it is some times impossible to prevent the formation of this complication.

The explanation of the wandering of the left

the nght side. He explained the presence of right sided abscesses in the region of the panetal pentioneum as being caused by the position of the appendix. Meisel is of the opinion however that the tendency for these abscesses to localize panetally is due to the fact that the visceral pentioneum is much more enable of absorption.

more capable of absorption One must consider another very important possibility With the existence of an abscess between the loops of intestine there probably results through local irritation a temporary paralysis of the intestine in the immediate neighborhood As a result of this localized intestinal paralysis the affected loops of in testine become distended with gas with the natural tendency to extend toward the ante nor abdominal wall carrying with them the abscess contained between the adherent loops Those abscesses which form originally postenorly between the mesentery omentum and intestinal loops have a tendency also to extend toward the anterior wall because with the increase of the fluid contents of the cavity there is no possibility for it to extend poste norly against the fixed posterior abdominal wall leaving the only one possibility ante norly

As previously mentioned children seem to be especially affected by this complication in our 9 cases 4 were less than 13 years of age Because of this frequency of its occur rence one should always suspect its formation in all cases of appendicitis with an unusual course in children

The symptoms of the left sided abdominal abscess are usually pain in left abdomen with at first no definite physical signs. Soon however thereit an increase in temperature with also an increase of the leucocy tes in the blood. If the process continues further there results a point of tenderness in the left lower quadrant and later the formation of a paniful tumor With these symptoms and signs in cases fol lowing acute appendicities the making of a diagno b. is ciss.

Treatment consi ts primarily in rest in bed and warm applications to the abdomen. As our Case i and everal other cases in our enes have shown all symptoms and signs can di appear under expectant treatment.

(4)

there was tenderness in the left lower quadrant

pain in the left side of the abdomen. After 3 days of rest in bed the pain became localized in the left lower quadrant. Readmitted into the chine. In

was no extension of ab cess into pelvis. Five weeks

CASE 3 H O age 12 years Archive number

The above four cases represent the various types of left sided abscess which we observed in the Zurich Surgical Clinic

in the Zunch Surgical Clinic
There is considerable difference of opinion
as to the cause of the formation of an abscess
on the left aide of the abdominal cavity in
cases following appendicutes in which the
primary purplent process is located on the

cavity which may later become localized and form an abscess. This vould hold true for all cases of general pentonius

The theory advanced by Moszkowicz does

ı exudates

Schlange believes that multiple abscesses within the abdominal cavity were originally communicating with the primary abscess and and c and form the addess

adbes Case

type as first an abscess developed in the cui

at the appendectorny

A further possibility for the formation of the left sided abscess is in those cases in which the appendix is located medially in the region of the bladder. The purulent exudate passes from the right side to the left over the superior surface of the bladder. This theory has been advanced by Rotter and Sprengel Sprengel also believes that in those case in which the appendix is located within the true pelvis there may first result a polivic abscess with direct extension into the left side of the abdomen after the pelvis becomes filled.

A last possibility exists in those cases of situs inversus viscerum which are however very seldom

Poupart's ligament and above and medially by adherent loops of intestine (Case 4) This lower form of abscess formation is not to be confused with an abscess within the pelvis An intermediary form is however possible A left sided abscess may extend into the true pelvis or a pelvic abscess above into the abdominal cavity. In those cases where a swelling is palpable in the rectum and a tumor also in the left lower quadrant one can only determine with certainty the presence of one or two abscesses by draining one Second the unusual form which is located at a higher level usually in a line connecting the two anterior iliac spines (Case 3) This form be cause of its position is easily differentiated from abscesses in the cul de sac of Douglas

Anatomically the left sided abdominal absees is characterized by its tending to approach the antenor abdominal wall as demon strated by Sprengel. This explains in all probability the reason why these abscesses peculiarly do not gravitate into the pelvis evenwhen treated expectantly. Even when treat ment with Fowler's position is immediately instituted after the appendectomy. It is some times impossible to prevent the formation of this complication.

The explanation of the wandering of the left sided ab cess toward the anterior 'thdomina' wall can naturally not be the same as Spren gel had given for tho e al see-ses located on

the right side. He explained the presence of right sided abscesses in the region of the parietal perintenium as being caused by the position of the appendix. Meisel is of the opinion however that the tendency for these obscesses to localize parietally is due to the fact that the visceral peritoneum is much more capable of absorption.

One must consider another very important possibility With the existence of an abscess between the loops of intestine there probably results through local irritation a temporary naralysis of the intestine in the immediate neighborhood. As a result of this localized intestinal paralysis the affected loops of in testine become distended with gas with the natural tendency to extend toward the ante nor abdominal wall carrying with them the ab cess contained between the adherent loops Those abscesses which form originally posteriorly between the mesentery omentum and intestinal loops have a tendency also to extend toward the antenor wall hecause with the increase of the fluid contents of the cavity there is no possibility for it to extend poste norly against the fixed posterior abdominal wall leaving the only one possibility ante

As previously mentioned children seem to be especially affected by this complication. In our 9 cases 4 were less than 13 years of age. Because of this frequency of its occur rence one should always suspect its forma.

abscess are usually pain in left abdomen with at first no definite physical signs. Soon how ever there is an increase in temperature with also an increase of the leucocy tes in the blood. If the process continues further there results a point of tenderness in the left lower quadrant and later the formation of a painful tumor. With these symptoms and signs in cases following acute appendictus the making of a diagnosis is easy.

Treatment consists primarily in rest in bed and warm applications to the abdomen. As our Case 1 and several other cases in our series have shown all symptoms and signs can disappear under expectant treatment Also because of the tendency of the abscess approach the anterior addominal wall it is advisable to observe the case and allow the abscess a chance to advince as far anteriority as possible. As soon as one is sure however that the condition will not respond to conservative treatment surgical measures must be resorted to. Incision should be made over the point of resistance and as the abscess is very often covered with loops of intestine its necessary to separate carefully the usually fresh adhesions before gaining access into the abscess casty. As a rule it is possible to

CONCLUSIONS

The left sided intra abdominal abscess represents a typical complication of both the conservatively and the radically treated cases of

collections
Two forms of left sided abdominal abscess
are found a superior and an inferior The

latter is to be differentiated from pelvic ab scesses

The clinical symptoms are similar to those characteristic of any other intra abdominal

abscess

Children are especially subject to this complication following appendicties

Treatment is at first conservative which is sufficient for a certain percentage of cases. If no good results are obtained by conservative methods of treatment, however incision

is indicated

If the patient's condition permits it is advisable to await the approach of the abscess to the antenor abdominal wall which occurs in the majority of cases.

LITERATURE

Brevo. U for d B h df gdr appe dunuschen Absesse B tr. blin Chi. 1997
Fa sunz. Cited by V gd.
Mostrowicz. Cited by V orel
Mostrowicz. Cited by V orel
Mostrowicz. Cited by V orel
Schmanz. Charge des U i Des St. titent 000
Schmanz. Charge des U i Des St. titent 000
Schmanz. Charge des U i Des St. titent 000
Schmanz. Con part appe deuliar Dase table

ch f khn nendizitis

PRIMARY CARCINOMA OI THE LIDNEY

By JOHN L DIES M D ROCHESTER MINNESOTA Files S gray Th M ye F and t

AkCEAU in reviewing a sene of renal tumors compiled from cases from the necrop; and operating rooms of the Mas achusetts General and Bos

that probably not more than per cent of renal tumors are carcinomata Reiche in 11 030 cases of cancer found eighty renal neoplasms (o 7 per cent) Young found in the records of Johns Hopkins Hospital only one case of true adenocarcinoma of the kidney Eisendrath believes that the majority of cases of carcinoma of the renal parenchyma occur in adults only a few having been found in chil dren Albarran and Imbert in 1913 found but 13 cases of malignant adenoma in 520 cases of renal tumors. Wilson reported 3 cases of pnmary carcinoma of the kidney ob served at the Mayo Clinic in the 101/2 years preceding 1916

Garceau maintuns that carcinoma of the pure type is extremely fare in the kidney and insists that the tumor most commonly found is that derived from adernal rests maintly speringhrous Raisshoff believes that sar coma of the kidney occurs more often than cartinoma in the first decade of the Lilienthal agrees with him saying that rend tumors of young children are more likely to be sar contatous than carcinomatous. According to Essendrath also sarcoma is the most common type of tumor in children it is usually of the round or spindle cell type grows very rapid by and invades the veins comparatively early Eusterman says. Well authenticated cases of rend carcinoma sarcoma and malignant adenoma are comparatively few

SYMPTOMS

According to Braasch the cardinal symp toms of malignant growths of the kidney are hæmorrhage urine tumor and pain. Given a chinical picture of a pilpable tumor in the region of the kidney hæmorrhagic urine and the general symptoms of malignancy the diagnoss of malignant renal tumor will usual by be found correct

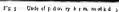
ORIGIN

Waldeyer has shown that carcinoma of the kidney originates in the preformed glandular anlage of the unnary tubules. White and Martin believe that it develops from the tubular epithelium or occasionally from the epithelium of the pelva. According to Stengel and Fox the growth begins as a soft white



fonth Department is ony U work it tauce list







Fg 6 Gross specim of t m r

cases of mulignant di ease of the kidney. The
choice of the lumbar the abdominal or the

tumor in the cortical substance or in the medulia

that from

kidney or from aberrant cell of the myotome or other similar structures

ETIOLOGY

The cause of carcinoma of the kidney is still a matter of controversy Calcula are fre quently an a sociated complication. Stevens found them in 66 per cent of this cases. Corver of the cases Corver of the cases.

was the

Virchow was the first to call attention to the

1 the one generally 10110weu

REPORT OF CASE

(for example hors shoe kidney) as nwm, been found in cases of renal cancer. Male are more prone to be affected than females. Metastasis occurs by way of the veins or the hymphotics.

OPERATION

Nephrectomy is generally recognized as the only means that offers any hope of cure in

cvt s number d 2500 000 ILL I

ent for t for la g ght

263

5 CORNELL J R Renal since a sociated with renal tone Coll cted I ap of th Mayo Clim 19 4

requested that operation be performed According	7	Surg
ly under gas ether anesthesia the grouth as re	8	I ncet
	9	
same time careful work the tu nor could be removed with impurity. The child however never railized completely and died 1 fev hours later without re garing consciousness. The pathologic treported a large oval lumor weighing 3 5 pounds (1591 grams) which had at		
	13	
	14	traege med
renal tissue Around some of these areas of renal	15	
tissue nere small retention cysts containing a watery fluid. The diagnosis was adenocarcinoma of the kid	16	
ney (Figs 1 to 6) BIBLIOGRAPHY	17 A J sumors ithe kid ey La ce	t 19 3
I ALBERRAN J a d LUBERT L Lest me rs d in	8 American O at dly Ming a p 6 o	
2 Bt of H Tum fth kid v I Cabot Wod	o White J W nd Mart E Gent no	ary s r
en U logy Ph I delphi d'er i k Laand Feb se 9 4 654	ty d en calds es Philadelphia do Lipp cost 92 q28 pp	
J BRAASCH W F Cincldt n malg ast renal tm rs J Am M As 9 3 1 74-78	2 Wilsov L B Hype ephrom t J M 8	0
4 Broden Il G P 1 rycarcin ma fin kid y with impa ted r teral cal ut a f Urol 9: 67-	22 Young H T more of the ki frey I Olr M dc e Phiad lph a nd N Y rk I Febre d d 19 4 00	Vi iern Lea pi

ACTINOMY COSIS OF THE OVARY AND TUBE

BY TERDINAND C HELWIG MD KANSAS CITY KANSAS

F m h Departum t P h logg L m v f K ma Medical School

CTINONI COSIS of the internal fe male genital tract is a chronic burrow I ing infection which occurs more fre quently than is commonly supposed. It is due to the actinomyces the organism which has the gastro-intestinal tract as its normal habitat and which produces the well known specific chronic inflammatory condition which is as ociated with abscess and sinus formation. It should not be confused with another organism which resembles it in many respects but is widely distributed in nature and is according to most authorities in no way re sponsible for the condition under discus sion and should be classified as advi ed by Wright under the heading of nocardia

There is considerable difference of opinion regarding the source of the actinomy cotic in fection and there are two distinct theories in this respect. The first and most plausible theory is that of Wolff and Israel who claim that the organism causing actinomy cosis is a normal inhabitant of the gastro intestinal tract and usually gains entrance through some abrasion or in conjunction with a foreign body The opposing theory first formulated by Bostroem has become so thoroughly in cornorated into the literature that it has been generally accepted. It is warmly upported by Mattson who maintains that there is but one organism namely that advocated by Wolff and Israel and that it is not a normal inhabitant of the gastro intestinal tract and oral cavity but has its origin outside the human body is capable of dual existence pri marily as a saprophyte in old sod soil from which it gains access to grains and grasses and through this medium becomes capable of infecting man and the lower an mals Mattson apparently disregards the fact that the organism which grows outside on the grains and grasses and in the old sod is an

grows only at body heat and is very difficult to cultivate

Unght whose excellent work in 1005 did much to support the hypothesis of Wolff and Israel demonstrates rather conclusively that the organism found so commonly in nature differs profoundly from the human and bovine type of actinomycosis particularly in that it has spore producing elements Colebrook who obtained mycehal organisms from 24 cases of human artinomycosis found that 23 of these were anaerobes and that all of them conformed in their general characteristics to the anaerobic type described by Wolff and Israel He was unable to transfer these to sterile oats and other grasses and then transfer them to animal by intrapleural and intra pentonal injections. Lord injected the maternal extracted from tonsillar crypts and carrous teeth cavities into guinea pigs and produced morphologically typical actinomy cotic lesions but did not isolate the organism Davies recently has made a study of the crypt contents of human tonsils and he con cludes In man the granules found in crypts are for the most part composed of radiate non branching mycehal structure fusiform bacilly perochetic and coor and true acts nomycous does not occur Cope thinks that the infection almost universally ari es from

tooth As a result he bad an abrason on the hunche and an actunomycote lesion subsequently descloped. The second case: that of an actunomycote abscess in direct continuity with the cavity of a canous tooth McWilhams reports a case of actinomycosis of the finger re ulting from a fistic encounter and the loss of a tooth. Israel found a piece of tooth in the bronchus of a case of thorace actinomycosis. Warwick cites two cases one simulate to Hardel's only in this instance the



Fg Ftern! ppe n of onnm ss sh thek dh si d regul r l l l t n

teeth were pulled while the patient was under general anasthesia Following this the patient developed thoracic actinomy cosis and coughed up the tooth His second case is that of a man who had one tooth pulled followed by actino my costs of the jaw Stengel tells of a case of actinomy cosis of the jaw following a wound produced by a tooth extractor New and Fig. in analysing 150 cases from the Mayo Clinic seem to favor the view held by Wolff and Israel They reported one patient who developed actinomycosis while being treated for pyorrhos and 6 cases who developed the disease after having teeth extracted. They likewise reported r case following the removal of the tonsils The literature is replete with such instances yet this theory has apparently received little consideration

PATHOGENESIS

While performing a routine autopsy upon a body Chian discovered a round gray patch in the excal mucosa which measured about i centimeter in diameter and 5 millimeters thick and showed a ray fungus the filaments of which had penetrated and filled the glands of Lieberkuehn This comprises the earliest case of intestinal actinomy costs. The fungus slowly burrows through the wall of the intesune producing ulcers that vary in size from 2 millimeters to 2 centimeters in diameter. As it advances it infiltrates all tissues with which it comes in contact. At a later stage in the intestinal type of disease there are under mined ulcers with a base of muscularis show ing a defensive zone of fibrosis which follows



Fg Cr s s cti n of vary p se ting w m ten ppea ace d s e inte l ing sib osis and los i ovarian ub tan

in the wake of the invading organism. This

in the indurated wall of the gut with a mu cosal scar showing where the streptothrix had entered This cicatrization is often seen as dense cord like tracts of new connective tis sue connecting the old with new foci of in vasion. In front of the organism as well as behind it there is considerable reaction the pentoneum becomes active as soon as the fungus is through the mucosa and adhesions begin to form with thickening of the outer wall of the gut and matting down of the ad sacent structures thus erecting a barrier against further progress of the parasite However the organism continues to infiltrate progressing through the adhesions and bur rowing deeply into every new structure which he in the Th

or pears involvement a greater possibility. This typical progressive involvement is explained by Hinglais who states. The fungus introduces itself into the cells from without inward then perforating their walls from within outward the filaments of the fungus place themselves in contact with other cells that they in turn penetrate. Continuity although not the only method is perhaps the

ACTINOMYCOSIS OF THE OVARY AND TURE

By FERDINAND C HELWIG MD KANSAS CITY KANSAS From th D to timen 1P h logy U to y (Kansa Med al School

CTINOMY COSIS of the internal fe male genital tract is a chropie burrow Ing infection which occurs more fre quently than is commonly supposed. It is due to the actinomyces the organism which has the gastro-intestinal tract as its normal habitat and which produces the well known specific chronic inflammators condition which is associated with abscess and sinus forma tion. It should not be confused with another organism which resembles it in many respects but is widely distributed in nature and is according to most authorities in no way responsible for the condition under discussion and should be classified as advised by Wright under the heading of nocardia

There is considerable difference of opinion regarding the source of the actinomycotic in

that the organism causing actinomy costs is a normal inhabitant of the gastro intestinal tract and usually gains entrance through some abrasion or in conjunction with a foreign body The opposing theory first formulated by Bostroem has become so thoroughly in corporated into the literature that it has been generally accepted. It is warmly supported by Mattson who maintains that there is but one organism namely that advocated by Wolff and Israel and that it is not a normal inhabitant of the gastro-intestinal tract and oral cavity but bas its origin outside the human body as capable of dual existence pri marily as a saprophyte in old sod soil from which it gains access to grains and grasses and through this medium becomes capable of infecting man and the lower animals Mattson apparently disregards the fact that the organism which grows outside on the grains and grasses and in the old sod is an aerobe very easily cultivated and cannot be transferred to animals by inoculation while the organism of Wolff and Israel is anaerobic

grows only at body heat and is very difficult

Wright whose excellent work in 1005 did much to support the hypothesis of Wolff and Israel demonstrates rather conclusively that the organism found so commonly in nature differs profoundly from the human and bovine type of actinomycosis particularly in that it has spore producing elements Colebrook who obtained mycelial organisms from 24 cases of human actinomy cosis found that 23 of these were anaerobes and that all of them conformed in their general characteristics to the anaerobic type described by Wolff and Israel He was unable to transfer these to sterile oats and other grasses and then transfer them to animals by intrapleural and intra pentonal injections. Lord injected the matenal extracted from tonsillar crypts and carrous teeth cavities into guines pigs and produced morphologically typical actinomy cotte lesions but did not isolate the organism Davies recently has made a study of the crypt contents of human tonsils and he con cludes

are for

non bra

bacilly spirochætæ and cocci and true acti nomycosis does not occur Cope thinks that the infection almo t universally arises from the mouth and alimentary tract and he cites z cases which are clinically very convincing In his first case the patient had been in a fist fight and knocked out his adversary s tooth As a result he had an abrasion on the knuckle and an actinomycotic lesion subsequently developed The second case is that of an actinomy cotic abscess in direct con timinty with the cavity of a carious tooth McWilliams reports a case of actinomy cosis of the finger resulting from a fistic encounter and the loss of a tooth Israel found a piece of tooth in the bronchus of a case of thoracic actinomycosis Warwick cites two cases one similar to Israel's only in this instance the

Overa se findings The abdomen was opened

granular necroise tissue in the center enclosed by epithelioid cells. In this necroise tissue there are stregular cleff like spaces as would be produced by the solution of cholesterio crystals.

peritoneal and pelvic attachments leaving a very

None of the 5 ctions shoot owarnan tissue. See tions through what is evidently the ovarian mass show nothing but irregular acute and chronic in flammatory foci separated by more or less heavy bands of hyalme fibrous tissue. Some of these in flammatory foci are rather large and contain abundant pus and are in d by cute granulation

clamped about r inch from the uterus the ti sue was cut and the distal portion of the tube and the tumor were removed together

Gross pathology The material removed at operation consists of an irregular inflammatory mass made up of a tube flattened out on what app rently appears to be a very markedly enlarged and didense fibrous tissue masses extend into the wall of the tube. The type of leu coytes in these loci is likewise variable. In the largest purilent foci o casional typical eosin staining radiating mycelial structures characteristic of actinomycosis may be seen. These show clubbed endings and are sur

mainder of the inflammatory mass but is fim briated end is open. On section the epithelial folds appear thickened and somewhat flattened out and the lumen contains a small amount of pale yellow rather vise d purulent exudate. The remainder of the inflammatory mass apparently representing an enlarged ovary measures 7 by 5 by 4 centimeters and presents a very rough bosselated hamorstage surface covered with tough fibrous ragged and hamorrhagic adhesions The mass s unusually hard and tough in consistency and cuts with great resistance the cut surface presenting a wormeaten appearance with numerous round and irregular anastomosing pockets of rus separated by dense masses of h rd indurated connective tissue. These interlacing pockets of pus contain a pale yellow viscid purulent exudate that is easily expressed on the surface. No typical canary colored granules or gray flecks are seen in this material. Smears from the exudate fail to show a streptothric or any other organism

Hittological pulsology. The tube show marked thickening of its will there being hypertrophy of the muscle insure and consilerable hyperplasia of the epithel al folds. Some of the lister show fusion of their free radis producing a peeudo glandular appearance. There is some proliferation of the epithelial cells and likeways con detable infiltration.

In addition to the cases reported in the table there were 6 others 5 rited by Hueffer and 1 by Rosenstein which were not incorporated in the foregoing list because the information was too scartly and the original sources unobtainable

The 5 cases atted by Hueffer are as follows frankenstein's case was an involvement of the parametrium with origin in the appendix Illich's case was an involvement of the ad next with the primary focus in the intestine flexingers was of the tubes and of un known origin and those of Taylor and Fisher and Toennes both involved the right owary the former being of unknown origin and the latter arising from the intestine. Rosenstein cites the case of Giordano which is likewise hated by Robinson, thus was an involvement of the uterus and i said to have been primary in the skin.





In 3 Lav pa plot m rograph fan et n my tiel y hwng typ alet bir mati embelded an absce

Is 4 Low po ph t m rogmph of a loger clony h sing the cha ten to rragm ht a d loc t

greatest single factor in the spread of the infection Blood des imination is like vi e of

m aths the is mirred but his never ben n z rant The menses have b n n tmal Present elle is The bo el trouble with painful

very minor roll I artich Laufmann and (till even denying uch a possibility claim int that those case in which such involve ment is noted are merely tissues which he in the path of invasion

lefection at sted a year prior to nir ree into the

from a sec 25 occupate a house sie com pla no of box I trouble an I painful I facation She 1 1 1 10 1 2

lel vear on

Il sual era ni tal on As de from a Dalpable and ten ler thoroid the ex minat on of the hal ne k and thorax was es entially negat e. The abd men showed a go gh in I nted it epular scar 3 i ches long at McB rney's nont Thite wis maked

ournient materi and he boy can at the time I made a minate a board the coal da

as on the pht

any roximately 6 y ceks the town I heal rely slot ly a dl a mg a large ugly car Srew pa tically sympt ml sunt lay areas then sh hti m north gial st g 6 secks a c mpan at by pa s in her right sife Sh la hal leu then for 13

varunatio te e led th pr : e of hem rebo ds Ped elleount a 4 400 000 ht 11 decile unt troop hamoel b So p r cent polymorphonu clear I ucoestes 70 prett

TABLE OF REPORTED CASES-C ntmued

£ 7	¥	a	Loc 1	ž Q	A B C	Sympl tes	- é	D nt	Pr 2, 15	R m. k
B dy	8	۰	Adn	}	0 7	nghtlow qd tp nally terdisc twi	1			Cmms act bes i m d d g i
// E	9	9	B th	1	1.1	Da by di	x	7 515 0	1	fbl im t
hw	38	9	L ov ry	Appe dia	X 0	ped be of the by the s	Y	, 0	D	Pitddsptm?
N restrik	38	6.1	Ag rea	U k w	110	den ipan M	Ш	5 31 0		dh t bes!
K bler	11	9.	Lover	Ut 5	KINK	3f mips mif d dff ft 1 bo bot 1 3 m	1 1	5 7006 X	D	Ab ses 1 plen ov y
Rob 10	3	0	Ov th	M so-	0 7 0	Ely time mba	1	1 }	ł	
Hf	4		U to	S pm vd	XIO	Twi had Twi	1	WE O	1	W m t t m

Bu C Ptos D⊸dd I∽lmp

An interesting deduction is the fact that the intestine is seen to be the origin in a co of the 3c case, listed which lends consider able support to the hypothesis of Wolff and Israel e peculity since the source of the remaining to cases is either debatable or of unknown origin. This phase of the subject has been discussed rather extensively by Hucffer who questions all cases reported as occurring by way of the vagina and utered as

The ovaries alone were involved in 12 in stances the parametrium in 5 the ovaries and tubes in 4 the tubes alone in 4 and combinations of the tubes ovaries uterus and idnexi make up the remainder of the case

Most of the cases occurred during the child bearing p rood and the duration of symptoms ranges anywhere from 1 weeks to 13 years the majority of cases being from 3 months to a year

DIAGNOSIS

Even during laparotomy the condition may not be easily recognized. As in the present case, the surgeon often suspects that

he is derling with a neoplasm until the patho logical report fails to confirm his deductions and even then the etiology may not be defin itely determined until the funcus is demon strated The pockets of pus containing the sulphur granules said to be so characteristic of ray fungus infection are not always in evidence to assure the surgeon and gross examination alone may be entirely insufficient Actinomycosis is primarily a tumor with the structural resemblance of a neo plasm but being essentially inflammators search for the elements of inflammation is imperative Microscopic examination often fails to bring out the fungus immediately and in the absence of the canary colored granule the diagnosis may remain doubtful latient search however will usually yield at least one characteristic organism with the radiat ing clubs. Fortunately in the case under dis cussion the streptothrix was suspected and one organism was found in the first few sec tions cut with parrafine although other or gamisms were not found until a very large number of sections had been made. Hæma

TABLE OF REPORTED CASES

		~	1		\neg	-	==		-				
E Z	1		-	Origo		Ţ	1	Sympt ms	- 1	Der 1	1	À.	Remark
Z m	1	88	I L va	s la est.	7	1	×1	O F wittendel	1	O 5 mos	×	1	Uteri daera pr un ed un fist
Zem		31	Rtb		17	ĭ	X	n) c	+		-	-1-	, ma sata
Zem	3	88		- "									
Bostroem	3	8.9	Overy	-									
Sam er	36	80	I m	-									
Samter	35	30	P m ut :	- n									
Sam er	6	82	L vary	Line	d_	1	ļ	pain umor anorb an	41	35 yrs.	ľ	P	P can be been of Her estal
Rechten be ber		50	L rus	ŁI	X	0	0	For operators turner in the left bypog tr m	4	71	×	b	Perfor ted bladder p guld and
Stew et	35	8g	Ro h	3 ta es	1	,	0		١	III,co	×	Ī	Typical heps in becesses yagi
31 bel	45	*	B y	t erus	×	Ľ	10	ess in carrie	-	0 yrs	X	D	Reco-ev as figuile
Geklaer	3	89	2 h	li p	×	3	0	Pala I th Ift ho sol	1	2504	x	D	Corcum nd small gut dh rent to pel se organs.
ti	1	900	8 79	L	×	1	0	Asci de th fill wars purse teus 1) no	×	77	4	D	Li bacenes deutal ca go ry
F													
F													
If tend B rry	9	90	L y	L h on	0	*	0	Married hild weak ess be # d wn p u		\$ mos	0	ī	N mereus persappend al dhessons
11 riot			Ldu	Append	×	`	0	Continem re me pe i the bd men to time at bruth d	1	\$ mos.	۲	a	M p ctr my bucesses of ever, lumbs and prive assectes.
Rosenstein	7	904	R ry	Append :	`	1	P	Amenogrables into his d typ (his ry t ppe di	1	3 810%	õ	ī	Exploratory peratuo h ed larg popura g va ey
S hi h wier	33	905	T be Overy	I =	x	`	x	Non gi	0	5 311	۲	D	Abscesses in 1 g pleu pe m live plue and vary
h Acu	3	0 5	L be	Rect m L. m est	۲	¥	λ	Non gr	0		۲	D	A orn cotic bicesses in h er t be va d ec um
Verocay	+	905	Cterus Ad 12	Rest m?	1	×	0	Amenorshire for an the	ō	mos	۲	P	Rec I lees in heesy m as i
II mm	39	goó	T bes	t know	х	Ÿ.	0	Non gi	X				Num pelvi dhesa ta
	1			4 40	-	•	0	Ann -	l v l		nΙ	rJ	Chresy masses in term d uth

- 10 HART B J Obst & Gynac Brit Emp 1902 is 25 1 Henerot De l'actinomyc se des organes génitaux Thèse de Lyon 1902

 12 HERTZIER A. F The Per toneum St Louis C V
- Mosby Co 1919 1 276-3 6 Hiscars M Internat Chn 192 (31st Senes) na
- vol. 3 59-72
 14 HUEFFER E Monatsche f G burt h u Cynael.

- 1922 lv u 197 o

0 6 XXXII 1772 1775 LORD F T J Am M As 1910 l\ 261-263 21 MATTSO\ W W Surg Gynec & Obst

EXXIV 482-404

22 McWilliams C A Ann Surg 1017 1 17 1 8

23 NEUBALSER H Deut the med Wichniebr 1907

24 New G B and First F & S rg Gym e & Ob t

PARTSCH KAUTHANN and GRILL Cited by Hueff r

RECEIPMEACHER Cited by H nnot Robinson and

XV 146 161 18 No ENSKI and CRIARY Ct d by Hingla 10 Litres M and Levy F D utsch med Wchnschr

XXXIII 457~ 450

Hueffer

1913 IXX 11 617-625

- ISRAEL JAMES Arch I path Anat etc Be 1 1878 lon 15 53 16 Keller R and Haum A Centr lbl f Bakt n l 1908 lu 726-7 9 17 KORLER BERNARD Frankf 2t hr f Path GIA

- 3

509 574

zig 191

- 20 SAMTER E O Arch f kl n Chir 802 xlm 257 351 Schlagenstaufer Verhandl d deutsch p th Gesell sch 1905 142 Schlegel M koll und Wa sermann Handbuch der

ROSENSTEIN PAUL Arbet n auf d m Gebiete de

27 POBINSO M R Surg Gynec & Obt 19 9 XXIX

- Path An t u B kt 10 2 1v 284 296
 - Path genen Micro-organismen 1903 ii 861-9 i Jena G stav Fis ber
- 3 Staw E H Proc Roy So Med 909-) 11 146 33 Stenger J A Net York M R c rd 1910 Ixxvii
- 34 Stewart G and Mute R Tdinburgh H sp Rej
- 893 1 96-1 3 35 VEROCAY JOSÉ Verhandi d deutsch path Gesellsch
- 19 5 139-142 36 WAGNER CARL, Surg Gym & Obst 1010 x
- 49-151 WARNICA W T L neet L nd 023 ccv 497~50
- 38 Wodenwarr Schweiz med Wehn chr Basl 920
- 30 WOLES MAX and ISBAEL JAMES Arch I p th Anat
- ete Berl 180r x vi rs 50 Wasset J H J V Re arch 9 5 xm 303-405 Wunschen U b to an [Akthornyk se mit ein m Beitrag zur haus st k derselben Diss rtat on L. p.

ZEHANN A C Wen med Jahrl 881 486 477-405

toxylin and eosin Gram or Van Giesen stains may be used and all bring out the clubs sufficiently to make the diagnosis A smear of the pus stained by the Gram method often shows gram positive filaments that are almost pathognomonic The irregular pock ets of ous with old sinuses separated by dense hyaline fibrous stroma associated with the presence of polymorphonuclear leucocytes surrounded by mononuclear cells should always suggest the possibility of an actinomy cotic infection but demonstration of the typical fungus colony with its radiating clubs is necessary for an absolute diagnosis

Much has been written concerning the clinical importance of a differential diagnosis in these cases the consistency of the tumor mass and numerous points in the history being cited as of extreme diagnostic significance From the signs and symptoms pre

demonstration of the streptothers in a suppurating lesion to which one might attach any importance Previous history of appen dicitis with operation and an unusually slow and stormy recovery might make one sus pictous especially if the condition under con sideration came on at some time after the intestinal involvement had apparently been relieved. The organism is slow in its infiltra tion and slow in producing symptoms Schlegel reports a number of cases of acti nomy costs of the Jaw in which after infection the symptoms did not become manifest for over 2 years. He likewise found dry spore germinated even after 238 hours of direct exposure to sunlight

Robinson lays some stress upon the early onset of amenorrhota in the ovarian type of the disease but a review of the literature ful to justify this deduction Tuberculosis can usually be ruled out by the temperature curve and concomitant lung findings and malignancy by the lymphatic involvement

PROGNOSIS

There is a variance of opinion as to the prognosis in these cases All of the earlier cases died and most writers place the mor tality very high In case secondary bacterial invasion takes place it is stated by Gull that the patient may spontaneously recover as the actinomycetes are very susceptible to bacteria and are killed off by them. This would indeed appear to be the case when one views the pathological picture produced by the fungus A low worker a prolific fibrin producer and the tendency to the formation of permanent adhesions would label the organism as one of mild virulence (Hertzler) Lacry ca e is however an entity in itself and when complete surgical removal is im possible with an uncomplicated infection it may be stated with assurance that the prog nosts as extremely bad

TREATMENT

Early surgical intervention with an attempt to remove all of the diseased tissue is of course the only procedure Potassium iodide has long been considered the classical thera peutic agent but many cases of the abdominal form of the disease fail to respond to its use

The a thor wishes to expres his percent to Dr. Don Calls Gull y f his assistant and kindness in the use of his meteral a direcords

Note -Si e this p per was written thre cases of o an n cun myco ha e ppeared in the hit rature T

BIBLIOGRAPHA

Boxov Zentralbl f Gynaek o zxxi BONDY Zentralbl f Gynaek 9 EXX 34 4 2 BOSTEDEM B tr p th An t u. z allg P th 80 H 1- 4

7 CELECCER H P M antische f Geburt b. Gyna k 500 x1 601 700 HAR L A. Arch f path An t 0-25

HAMM Stra b grm d Zi g 906

types hes a group of tumors in which no such extremes are present. The difficulty here will he in the uncertainty of the fate of certain

one end only namely further proliferation

able as tissues except by a knowledge of their topographic relations The distinction is not

mability to produce its adult end product is an indication of defective chromatic content and is of itself a danger signal

Too little attention has been directed to ward the histology of bone repair Histolo gists believe that in the formation of bone from cartilage the cartilage cells never be come bone cells They are destroyed by the process of absorption which destroys the matrix and new bone cells onemate from specialized peno teal buds to take their place Histologists believe also that cartilage cells which have once become inclosed in lacunæ become incapable of reproduction. This is also true of adult bone cells Bone repair consists first in the formation of fibrous tissue and subsequently replacement of fibrous tissue (not transference of it) by osteoblastic in growths Cartilage formation unless it be

ta Ie

unted fractures will be found on examination to be in the vast majority of cases dense by a linuxed connective tissue such as is found in other scars. This is true in the vast majority of cases exceptional cases do occur in which cartilage is formed as a preliminary to callus. Whose accurate information on the frequency and etiology of this form of bone repair is urgently required.

With the present limited knowledge of bone pathology it appears unwise to discard en

tirely the tissue terms —such as chondro sarroma mytosarroma etc while there is no clear conception of the mechanism of the production of stroma. It is true that the cells and not the intercellular substance form the basis of diagnosis. But are not the functions of these cells perverted or otherwise a clue to the nature of the cells? By their works ye shall know them. In the present status of bone pathology, the pathologist who would disregard the formation of intercellular substance is discarding the ladder when he has clumbed to the third rung. It is well for him to recomine that he has not yet reached the top

With this explanation the writer ventures to offer this study of cases in which the inter

In this paper no account is taken of the cartilaginous tumors which contain bone. In these the osseous structures either replace cartilage or develop synchronously with it and constitute a separate problem. Carti

the idea that chondrn and much are essen tally the same Both these varieties of so called intercellular ground substance are

tion unite to form a syncytium. The proto plasm of the syncytium increases until the nuclei are widely separated The protoplasm then becomes differentiated into a granular endoplasm surrounding the nuclei and form ing the future cell bodies and a hyaline ectoplasm This ectoplasm remains as the ground substance of all forms of connective tissue The shrinkage due to fixation in ordinary histological preparations makes it appear extracellular Mucous ground sub stance is identical with the ectoplasm in its original semifluid state the more solid chon dro mucin represents the same ectoplasm altered b changes

explanatio

CARTILAGINOUS TUMORS OF BONE

BY VIOLET IN MEHLLER AB M.D. GALVESTON TEXAS

It is the purpose of this paper to describe in detail a selected group of carrilage containing tumors of bone with a view to determining if possible those features which enable one to state the beingn or malignant character of the particular growth under consideration and to a limited extent the relative degree of malignance.

The writer is ware of the pitfalls surrounding the term degree of malignancy. There is however a very definite group of tumors of other organs than bone which metastrage tale or not at all but which show definite inflittative and destructive tendences. These tumors are prone to recur. Such recurrences explained by the fact that while they appear in many instances to be encapsulated or to be

naked eye. They do not however tend to cause vascular embolism nor lymphatic extension and the distant metastases so char

P 1 ~ h at n a the

fulness for it conveys to the sirgeon very definite information as to his line of procedure. He must make a wide local extingation re

removal or other trauma) may take on more rapid growth. In time they may even change their character completely giving n e to a malignant process capable of metatasas. They present then a histological picture which differs from that of the original condition. The tran fer from one type to another is no more

remarkable than is the change from irritative premalignant epithelial hyperplass to can corous myassion It is probable that both are the result of a disturbance of the benchemical balance that controls mitoss and cell differentiation. If the writer understand correctly the terminology used by the Bone Tomor Registry, the expression borderhine tumor is used to replace that of locally malignant when such tumor arises in bone. This term probably conceys more accurately the meaning of the pathologist and is advantageou in man, ways.

In all tissues the determination of these borderbne cases tests the skill of the path ologist Definitely encapsulated beings to more in which all cells have attained adult development with the production of the normal end products of such cells are easily recognized Similarly complete departure

definitely malignant conditions both gross and microscopic diagnosis present no difficulties The value of pathological diagnosis hes in the recognition in obscure cases of the benign or malignant character of the growth Probably the greatest difficulty encountered is in the histological distinction between embryonic cells which are incapable of producing adult end products or of attaining in other respects the appearance of adult cells but are harmless enough and cells which have lost all growth restrictions even though they may retain to a certain extent the capacity to produce the normal end product. As applied to osteogene tic tumors this means that differentiation is easily made between the benign tumor com posed of firm well developed cartilage or of definite osseous tissue as opposed to the malignant tumor of soft vascular cartilagin ous or estead stroma Between these two

types hes a group of tumors in which no such extremes are present. The difficulty here will he in the uncertainty of the fate of certain prohiferating cells. These cells may appear at the time the growth is removed and the section taken to be embry once in type incapable of further differentiation and fashioned for one end only namely further proliferation that they continued to he they might in due

able as tissues except by a knowledge of their topographic relations. The distinction is not easily made between normal purpo eful young ethly proceeding on their lawful occasions and purposele 5 young cells having no law. The writer is convinced that in any itsue the inability to produce its adult end product is an induction of defective chromatic content and so fitself a danger signal.

Too little attention has been directed to ward the histology of bone repair Histolo gists believe that in the formation of bone from cartilage the cartilage cells never be come bone cells. They are destroyed by the process of absorption which destroys the matrix and new bone cells originate from specialized perio teal buds to take their place Histologists believe also that cartilage cells which have once become inclosed in lacunæ become incapable of reproduction. This is also true of adult bone cells Bone repair consists first in the formation of fibrous tissue and subsequently replacement of fibrous tissue (not tran scrence of it) by osteoblastic in growths Cartilage formation unless it be f nm amhar -

unted fractures will be found on examination to be in the vast majority of ca es dense by a inized connective tis ue such as is found in other scars. This is true in the vast majority of case: exceptional cases do occur in which cartilage is formed as a preliminary to callies. More accurate information on the frequency and etiology of this form of bone repair is argently required.

With the present limited knowledge of bone pathology it appears unwile to discard en tirely the tissue terms —such as 'chondro sarcoma my.cosarcoma etc while there is no clear conception of the mechanism of the production of stroma. It is true that the cells and not the intercebular substance form the basis of diagnosis. But are not the functions of these cells perverted or otherwise a clue to the nature of the cells. By their works ye shall know them. In the present status of bone pathology the pathologist who would disregard the formation of intercellular substance i discarding the ladder when he has climbed to the third rung. It is well for him to recognize that he has not yet reached the top

With this explanation the writer ventures to offer this study of cases in which the intercellular sub-tance is to a greater or Jess extent cartilagmous in the hope that certain characteristics of this limited group of cells may be

cianned

In this paper no account is taken of the cartilagnous tumors which contrin bone. In these the os eous structures either replace cartilage or devilop synchronously with it and constitute a separate problem. Cartilagnou tumors containing myxoma are dis

called intercellular ground substance are laid down in the embry o in the same manner The me enchymal cells the forerunners of all connective tis ue cells after active prolifera tion unite to form a syncytium. The protoplasm of the syncytium increases until the nuclei are widely separated. The protoplasm then becomes differentiated into a granular endoplasm surrounding the nuclei and form ing the future cell bodies and a hyaline ectoplasm This ectoplasm remains as the ground substance of all forms of connective The shrinkage due to fixation in ordinary hi tological preparations makes it appear extracellular Mucous ground sub stance is identical with the ectoplasm in its original semifluid state the more solid chon dro mucin represents the same ectoplasm altered b

changes explanation exceptions cartilaginous tumors contain either myxoma or mucoid degeneration or both

Case 1 Excessive cart 1 9 f ---

has formed and the medial part of this is but all phily cale fied and not at all o sified Laterally both endochondral and periosteal (membranous) bone are being produced

There seems to be no doubt that fracture was not produced by the initial injury The symptoms however dating as they do direct ly back to a heavy blow indicate that rather severe traumatism occurred at that time The writer offers the explanation that the injury stimulated a reaction on the part of the periosteum which responded not only by the normal production of bone but of cartilage and that this cartilage gradually encroached upon bone until it so weakened the shaft that fracture occurred The boundary line between such an irritative hyperplasia and neoplasm is none too definite. The excessively active growth of bone and cartilage seen here suggests that malignant change might easily occur were the bone subjected to further

ue surrounded by a دريا ي

I C SAU

was easily bribable thin this a mooth

Case 2 Subpenosteal epiphyseal chondroma S P 2500 Vale white age 20 years m nth nen h n

untation When a e ac ll h

vascular bone formed around the lateral fragment The peculiar erosion of the medial fragment the

sarcoma

megal ve

Rarely does one find even in childr n a y great production of cartilage as a part of normal b ne



Fig t Ca Carting u and sees call fell ng mult tra mut sm to the ct ct Sp taneous f etu e through the castil gine sa a

alight sensation of brittleness but not that of adult cartilage Microscopically the tumor is found to be more vas

cular than it appears grossly. The blood channels are invariably fixed by endothelium. Many of the vessels even of fair size have no wall except this endothelial layer but in many a more or less definite forbolisatie layer is present. These better formed

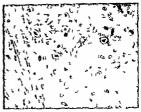


Fig 2 Case Ar a of rapidly prol fer ti g carr l ge the ll a f und n the pec men taken st p at on f om the classed

myxoma cells. There are no evidences of atypical mitoses. The tumor at this time in its history is a benign lesion, but it differs potentially from the dense ose is ing or hyxime chondroma in which gross and microscopi, pictures conform to the structure of adult cartilage.

Case 3 Central epiphyseal mytochondroms S P 2141 Female white age 12 years Eight months ago the patient thinks that she sprained her ankle There was lateral swelling but httle

before operation as he had marked access of pain especially severe at n ght and the ankle be ame red and very tender. She was taken to the Temple Santtarum and an X ray made. This showed en largement of the los er end of the fibula just above

d fincult to d stinguish from the my omatous but

the period teum stron d | |

ent car

1



Patholog cal examinat on Through the court syof
Dr Brindley the specimen was pre-ented to the
Surgical Pathology Museum of the University of
Texas The mucoid contents have flowed out so



in the past year treatment by salvarsan h s been

6 700 there was great pain and tenderness and slight

in the direction of a chronic low grade infective process.

distance of 12 to 15 contimeters was enlarged and showed no fatty marrow. It was filled a th thin almost colorless viscol mater al which clung to th sponges and had the appearance and texture of

however is composed of steral C y high

but no infection

perat on



Fg 4 Ca 3 C) temywoch drm of lower ad f

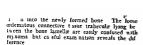


Fg 5 Cas 3 Sh w th z e of nfl mm tory fibross bet en the bon shell nd the turn r ti sue

microscopic picture and the freedom from recurrence after an operation known to be in complete indicate that despite the embryonal character of mucous connective tissue the admixture of such tissue with chondroma is not of itself evidence of malienance.

Case 5 Peripheral chondroma with mucoid de generation Path Mus 1327 Male white age 30 years The patient gave no history of previous in

pseudofibrillated The sections show o cas o I



Contra ting this microscopic and clinical picture with that in the preceding case one is impressed with the much slower growth permitting such great bone hyperplasis that the inflammatory changes produced obscure the neoplastic character of the riy xochondro matous tissues. The slow clinical course the

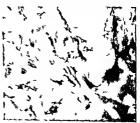


Fig 6 Ca 3 Myroch d in tou ti e f m ; the growing peripheral port of the 1um Th (is degenerated and cyst c



jury to the arm. A tumor mass sharply defined

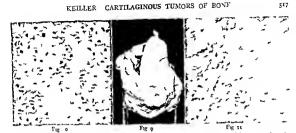




Fig S C c 4 Sh we gith o g fith mytomacells (t right) f in the esteoblats lying along bon ham the in the periph ry fith tum

where the tumor arose from the hone shaft a con siderable peripheral zone of hard hone was present. The tumor tissue arose from the outer lamellæ of

is a cop me as a sy thick is not penetrated by



but histologically this is proven to be mucoid de generation furnishi g evidence of slow growth and dele tive blood supply

· Pnh

r b o C

fi fih

CASE 6

Fig. 10

Fg 11 Ca 5 Area of mucold deg ne ton from the 1 term of a cyst c chond om ev dence I slow go h a d d fective hi od s pply Cell and mat v e alik deg erat d

to amputat n until 2 v rs an 1 9 months later when pain became intoler ble Amput tion was the i done by Dr Homer il il of Au in Dr Hill sent the history of the case

and a large part of the tumor to the p h 1

the out are and present more mitoses than the cells in the mygo

ell

chondcomatous areas. No defin tely heterotypic mitoses are present h ! size of the nuclei in transform are few ar

may be fo

5 t it of the necim

This case chincally and hi tologically hes in the borderline group Following a long slowly progressive course it has recurred after



Fr Care 6 Sh wing fruit it no fa bode i e cho droma of tha Iig 3 Ca 6 i Will track til x f rm ag th bulk f thet m of the tib BAe feell rou dwh ch

little int evening: t cell lars betan e ha be n t m d S h areas may spl n th ecurre ce in this case b t they re n t definit ly mal mant as typ cal m tosis s t pre nt

eradicate completely the growth: this region After the operation further attempt was made to get consent for shoulder girdle amputatin but it was not until 4 or 5 months later when recurrence was manifest that the patient accepted this as a last

removal has not stimulated it to very virulent growth. Metastases are not to be expected

e n

olo d but there was no great pain Some pair at it



Fg 4 C se 7 Showing the infiltr tio of the upp r d i the humer a by a typ cil ch odro arcona. The et as ond down the m we are ty is well show The puil lying bo the himerus 1 conver d note tumor tissus T? cartalage to en g th head of th b n n t aff ted

presence of nu lei of very va y 1 5 ze and by the pre ence of cells containing a single very large nucleus or multiple nuclei - three or even four in one tell body. These tells are of the type of b timpor gir t. 17

use grant cells has led also t h

Fe a for an telt no pass writing

n h k

but h 11



Fg t5 Case 7 Rap d 137 al cell p olif rati n n the sufce f a highly mal na t chond osarcoma of humerus Some of the cells ma b a du in m tous

the posterior third of the c est of the ilium -

a addle Th tume

anderiy in

exter to the thurn but peripherally the tumor showed no encapsulation. It spread in 6 p ocesses between

of the ili tissue possible

t

could no

ext usion unrough as possible a usue nound closed without drainage

Convale cence was satisfactory. The patient was



of thin clianghly malaith desarcon fulum The califage smith wild loped through out this time

upon the surgeon to do all that is needful and to do no more. In lessons of other organs than bone his expenence is greater and his facul test trunted. Of bone tumors he will see comparatively few even in the course of a long and active surgeal career. The cases in this group selected for presentation range in orderly sequence from the innocent to the gravely malagnant. Careful analysis should throw some light on the characteristics by which these tendencies may be recognized.

t Rate of growth Only under exceptional circumstances will this be of much clinical value. No cartilaginous tumor which has

of a previously being tumor may occur at any time and this feature therefore loses diagnostic significance. A timor which in creases in size very slowly and steadily or one which after attaining a certain size remains stationary is at the worst only mildly malignant or borderine.

2 Encapsulation The thick fibrous tissue

collected about them any intercellular substance

This tumor like the preceding case pre-ents clinically and grossly the appearance of ripid by growing widely infiltrating mahignant disease and the histological picture confirms the clinical evidence.

DISCUSSION

Given a rarefying central or periosteal lesson in bone one of the possibilities is a carthlag inous tumor. In certain situations one may be reasonably sure before the exposure of the surgical pathologist. So much dependence has been put upon this that many are a accuss tomed to look upon it as a product of the tumor itself. It is necessary to abandon this erroneous conception. It is now generally accepted that the capsule which surrounds a slowk growing neoplasm is a product of the environment: a wall of defense against the environment: a wall of defense against the convironment is necessary to a loreing body. It become evident then that fibrous tissue in the environment is necessary to the formation of a capsule. In the case of a length bone of a capsule.

L L = Inn v 1 1 dl

in the habit of producing fibrous tissue around foreign bodie. The normal response of bone to slow armtation is the production of foreign

exploring Linie It becomes at once it a o

body grant cells and young granulations which later are destined to be replaced by osseous tissue If given a chance it will frequently produce such response around slowly growing tumors Encapsulation is present between the soft tissues and a benign bone tumor but is not present between the bone from which the tumor arises and the tumor Whether the explanation suggested is correct or not the fact is capable of demonstration. If the surgeon finds a definite external capsule easily separ able from the surrounding soft parts enclosing a cartilage tumor he may safely conclude that his tumor is relatively benign even though he does not find the inner portion of growth sharply delimited Of necessity this will aid only in neonlasms which are external to bone Within the bone whether this means within the marrow cavity or the external lamella whether the tumor be benign or not the sur geon cannot distinguish with the naked eye the intra osseous limits of growth. Having no capsule to guide him he must take some apparently healthy bone lest he leave some that is intiltrated

The sascularity of the 3 Vas ularity

value of this feature is lessened by the diffi

which the myxochondromatous tissue in the interior of the femur was almost bloodless but the fibrosed bone of the shaft gave rise to sharp hemorrhage. In the malignant cases the whole structure of the tumor was colored by numerous small vessels

4 Texture The dense hyaline turnor re embling articular cartilage is easily recog nized as benign but few chondromata resemble thus clos ly the normal structure. Mucord legeneration with cyst formation and true my toma to no of h -

nancy consiste

form a

even fluid contents having the appearance and feel of mucous connective tissue. Whether

this is the result of mucoid degenerative changes or of the presence of true mucous connective tissue can be determined by the mtcroscope only The evidence indicates that this is of no consequence to the operator since either or both conditions may be found in a benien tumor Conversely if a tumor infiltrates the surrounding tissues and presents other evidence of malignancy the fact that

tumors has been furnished only by the demon stration of atypical mitoses or the products of such metoses Histologically my xomatous tissue has long been considered suspicious but there is no proof at the present time that the production of mucous stroma without nuclear signs of malignancy on the part of the cells

to be benign Frequently careful search through different parts of a tumor will reveal widely different histological features. When a tumor of apparently pure my tomatous tis sue produces metastasis such metastasis is attributable to other elements in the tumor than fully differentiated mucous connective tissue cells Similarly groups of undifferen tiated cells without atypical mitoses have been considered suspicious but such cells have been In and a

most a tendency toward a malignant change and in the absence of other evidence of atyp scal growth such turnors should be reported a

hfuor

biased judgment might then be based on clin ical gross and microscopic evidence and pathological nomenclature standardized The apparently divergent results of treatment might then be checked with some hope of formulating definite rules of procedure

Note—A bbli gr phy is appe ded as this paper is int uded rathe as a record f perso al beevet n than sa reque f the wirk f thers

FRACTURES OF THE FOOT

BY LEO DRETZKA M.D. FACS DETROIT MICHIGAN

In assigning to man of all the mammals a permanently upright posture nature de vised for him a remarkable mechanism in the foot. It is continuously subjected in walking to jolds and jast it is required to support on a relatively small surface the entire body weight and it is exposed to a variety of trau matisms ranging from a stubbing of the toe to the impact of a heavy weight.

The arch form of the foot affords a stable support and the maximum of mobility and leverage in walking. The keystone of the entire anatomy of the leg is the foot arch as a sound leg obviously is of no use when the foot is distibled. In primitive man and in the case of the laborer of today, a disabled foot means

an absolutely helpless person.

In my sense of a 440 mjuures are bated 332 fractures and of this number 72 are fractures of the feet demonstrating the resistance of the feot structure to injury. The commonest cause of foot fractures is the dropping of a heavy weight directly on the foot i alls from considerable height produce a lesser number 1 ractures of the borse of the tarsus are sel

dom caused except by very senous falls in which the victim alights in an upright position on a relatively hard surface. If the bones

broken both by falls and blows or pressure

Knowledge of the manner in which the in one absolute rule in examination of foot in juties is to \(\nabla\) ray the foot from every possible angle. Many cases of sprained ankle have been cases of fracture of the astragalus

ASTRAGATUS

In falls the astragalus is in most instances broken at its weakest part—the neck. The fracture may be simple or communited. If the foot is dorsiflered the interior afticular edge of the thia may in the manner of a wedge split it across. The disability in frac









Fig 3 Lateral new f th foot shows see 1 lne fract seet dig obliq by thrugh the middle th dof the astr galls with fragme tation f the ettern laurf e f th strag lus other middle that of the ctern laurf e f the strag lus other middle that the ctern laurf e f the strag lus other middle that the ctern laurf experience of the ctern laurf ex

The treatment is reduction under the fluor scope when the fracture is not sever. If the fragments are badly displaced excision is necessary Removal of all or part of the bone gives fairly good functional results. The foot is then immobilized at right angles with the leg.

OS CALCIS

The heel bone is fractured by a fall on the sole of the foot as well as by a powerful contraction of the gastrocnemius muscle and ten sion of the tendo achillis. The anety of fracture resulting is a large postenor heel piece or a general crushing of the central or anterior two thirds.

The symptoms are pain swelling change in the lavel of the malleoli and creptus. Ecchy mosis at the tendo achillis is typical. The foot should be placed at rest and ice packs applied until the swelling subsides. Open operation may be necessary suturing or pinning the fragments together. In the majority of eases reduction may be brought about by placing the heel on a padded wedge and pounding it in shape. Simple tenotomy may be the only treatment necessary in some of these cases.

The period of disability may extend to 6 months and in serious cases impaired pronation and supmation of the foot may persist for a longer period tr m ty

METATARSAL BONES

This group is invariably injured by direct violence. The first although the strongest is most frequently broken because it carries so large a proportion of the body weight and receives much violence in falls associated with eversion of the foot. The fifth comes next in frequency because of its exposed position Practure of the third metatarsal is apt to destroy the arch of the foot.

After reduction of the fractured bones the foot should be placed in a posterior molded plaster splint with particular attention to the maintinance of the foot arch. Early massage and baking is important. This includes dia thermy. Compound infected cases require drainage and much attention to minimize necrosis.

PHALANGES

Fractures of the toes are all o due to direct violence and are therefore often compound and infected. The diagnosis is simple compared with that of the other bones of the foot The treatment is reduction by manipulation and traction and then proper immobilization in a plaster mold.

DIVERTICULUM OF THE BLADDER CAUSING DYSTOCIA AT LABOR

REPORT OF A CASE

BY WILLIAM L WOLFSON M.D. F.A.C.S. BECOFFEE

ECAUSE diverticulum of the bladder. It was deemed nady 14 occurs so rarely in the female and particularly since in the case de scribed it resulted in an interference with the normal progress of labor the following case is deemed worthy of being reported

M A an American houses ife white age 28 came to my off ce complaining of frequency and ardor of urination since the delivery of her only child on May 1 1923. The history showed that there had been nothing unusual observed du o

s mus ner temperature to red from 101 in the morning to 104 in the afternoon Within s veral lays after delivery the urme was found to be cloudy and had a fetid odor. A slight burning pain was

mouner a parturient canal suffered extensive facera

tion but her condition after delivery was such that 1 5 1 14 5 # 1 e 11y



cough in childhood and typhoid fever at the age of eight Her menses had always been normal She had had an appendectomy performed in 1919 and believes that an oophor ctomy was allo do e at

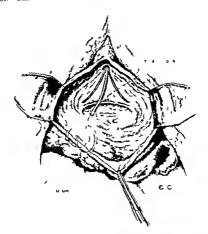
that time Phys c I examination The patient was a young female anamic and ev dently suffert g from a vel da were transp rent

> A m d an as present



Fg 2 Showing u t al cath trould with th tı 1 m

bladde



Fg 4 V w f bladder nd d to lum Urtel cathir n pl L thet r

The was no tenderness in the lower part of the bdomen nor any rigid ty No masses or organs were felt in the abdomen

I agin I xamin it n There was a b lateral lacera t on of the pelv c floor th almost no levator sup port. The ervix was practically absent the os being almost flush with the yaginal visult and scars at nded f om it across the lateral fornices. In the



Fig B e ti ul m fill d 1th sod um bromide solution

Femperature 99 2

Oth 1w se phy ical examination reve led no other ab ormal to

Lrn lis sho el pecific g a ity 1018 reaction acid color mb r though slightly toub d albumin moderate amount sugar negative acetone nega ti e Much pus man) squamous epithelial cells but no casts and no erythrocytes were found



rgs Mddlefgen Hdlers mmed tod et culum Th angensalou à tret e

I (mod sate ce

median incision wa made extend g from the symphysis publis upwards for 5 inches. The old scar 4 inches in length also situated in the m dline was excised. The lastia was split and the recti muscles separated. The bladder was thus exposed

were made by 101 lebted for h valuable assistance and excelent

as introduced and both uretered of ses e theterized with No 6 F catheters and a larger of the No 9 F na introduced into the diver



Fg 6 D eru hum fbl dd pacts 7 ubccm tmt s(1/ uc) VI A I mafe ge 28

fixed in the pels; and to the inner part it bugged the left lateral wall of the uterus. The outline of this sac was roughly ovoid and its upper surface was covered by the expanded left broad ligament the vessels of which were extremely large and tor tuous. Its position might be likened to that of a



F 7 Dr. teul m of bladder ho gitno i Ongs mm d at ly abo e i g

bladder Bacteriological examination of pus ob

sac was dissected free although it was quite ad herent at its junction to the bladder. Since it could not be tied off it was cut away. Closure of the opening into the bladder was performed with a double row of continuous sutures. Because of the danha. h.

appendix was absent having been removed at a previous operation. The left tube and ovary were also absent. Drainage was accomplished by placing one eigarette drain into the perstoneal cavity behind

shows a marked necrosis of the mucosa and marked cedema and attophy of the muscular coats. Here and there are collections of inflammatory cells principally of the small round cell type. In one area there is a myrked and merce the state of the small round cell type.

tion of the nound followed but the entire wound was closed and completely healed 4 weeks after the operation. Six weeks after operation the patient reported that she had excellent control of her blad der and was voiding to ounces at a time. Urinally sis at this time showed the urine to be free from pus and normal in all other respects.

The obstetingan encounters many causes of dystogs. Search of the hierature reveals no record of another usatance in which a diverticulum of the bladder has interfered with the descent of the fetus. In this case the diverticulum about 25 by 4 inches in size stuated beneath the bladder and at the left broad hyament and extending from the late broad hyament and extending from the late also border of the uterus to the left pelvic wall by its situation and size caused an abornal labor. It prevented the fetal head from coming through the pelvic binn and from coming through the pelvic binn and ancessatiated a forceps extraction. And just

Liven no symptoms. In the course of the labor and delivery, it was traumatized and becoming infected pyuna frequency and ardor resulted and the systemic manifesta tions of chronic septic infection became evident.

EMBRYONIC RESTS OF THE URINARY BLADDER

BY FLETCHER H COLBY M D BOSTON F mith U tg 1Cl ith P er B t Brigh m Hospital

ONGENITAL genito unnary	malformations of	f the
any degree n	unor or marked	Thus
there are found such	slight deviations	from

as a whole was strongly suggestive of a neoplasm o which by reason of necrosis I me salts had been deposited One fact inconsistent with this diagnosis was that it had been known to e ist f at least of years without the appearance of hamatuna or other evidence of progressive disablity. No induration of the bladder floor could be felt by vaginal palpa

bladder in winen the recognized

Operat on Under gas and oxygen anaesthesia the bladder was open d by a mid line suprapub c taci sion. The irregular raised area on the edge of the tingone was excised and the edges of the bladder mucosa approximated The tumor seemed to involve the muscular tissue and some care was necessary in dissecting it free from the vaging. Post en flith nationt

unnary bladder with the report of a case in

omen ut 15 The d the micro apoth wall with Thet

> 1119 on **48118** ane

large **tttock**

to the bierature since it seems probabic tha this condition while rare is occasionally encountered A familianty with the lesion will aid in its diagnosis

possibly of cloacal origin

1

1

(Sure No 20476) A widow of 50 was admitted to the hospital August 17, 1923 complaining of m by h story

> arge tion mucus secreting 44 resembling rectal mucous membrane The histological structure of the mucous membrane h s been

- - - m recognize sections of this

malties Inc II and pus cell Cystoscopy demonstrated an irregular area on the th trigone raised about a millimeters

(4) in 1894 described thickell a e mu cous membrane of the exstrophied bladder which on microscopical examination were ingrowths lined with mucus secreting epithe hum The muscular coat was not involved and the condition was regarded as non ma lignant He described the tissue as closely

right ureteral oritice was # 3 -



N rmal bladder h hpo e









fg 4 Hgh powrfld f Fgu e 3 sho 1 d tal fth mucu s cetung c lisin gl ndf rmat n



hig s Low poe fact faire h lbl th t h n n I gur 3 both h w g the lag mucu secret ng c ll 1 gl n l l rmat

resembling an adenoma arising in the intesti nal mucosa. In cases of exstrophy of the blad der mentioned by Keith (3) reference 1 made to the similarity of the mucou membrane in ex trophs to that of the large intestine Aschoff (1) de cribes the epithelium of the ectonic bladder as being of normal condition

defect resulting in imperfect closure of the anterior wall of the bladder Its exact embry alogical origin is not entirely clear. Johnsten (2) in one of the more recent studies of the subject reached the conclusion that it is due to an excessive rupture of the urogenital part of the cloacal membrane at a site cephalid instead of caudid to the genital tuburcle



to The micrograph of high portified of po other at ophed bidder in Figres The secret gills a gladfemat a are milet

It i reasonable to suppose that the condition present in this case in which the tissue

bladder

No description of this particular type of

REFFERENCES

phy fth bidd

THE CYPOLOGICAL EXAMINATION OF THE URINE AS AN AID TO THE DIAGNOSIS OF TUMORS OF THE GENITO URINARY TRACT

o

HAT I PARMENTER MD FACS BUT ALO NEN YORK

OR some time it has been the practice in the laboratory of the Buffalo General Hospital to supplement the usual lab oratory procedures in all cases of suspected tumor of the genito urinary tract with a care ful search of the urine sediment for tumor cell If we should reflect for a moment upon the nature of the tumors that are likely to arise in these organs such a procedure would seem an obvious necessity Tumors of the urethra bladder ureter and pelvis originate mostly in the mucous membrane and thus appear first in the lumen of the tract where they are continuously washed by the unne with the result that some of the cells may become loosened carried along and passed out Even in tumors of the prostate with the exception of the benign forms the surface of the bladder or urethra may rapidly become involved and likely as these tumors are to break down some of the elements of the neoplasm will hardly escape being washed out with the stream of the urine Valignant tumors of the kidney especially the hyperneohroma are very prone to extend into the pelvis break down and thus give it e to the presence in the unne not only of isolated tumor cells but also of particles of tumor tissue. It would seem reasonable to expect the presence of tumor cells in the urine in hypernephroma as soon as hamatura has occurred as that signalizes in most case, the appearance of the growth in the renal pel is or its indirect relation with it through the tubules

Vevertheless the cramination of the urine for tumor cell does not cem to be in vogue Whether it is universally neglected or not in

without the body. Furthermore the tumor elements which are loosened up are very likely to be those that have undergone various de grees of degeneration or even necrosi fre quently with incrustation so that when they appear in the sediment they are no longer recognizable as such For this reason as well as for many others it is quite true that in a certain percentage of cases this procedure will vield no definite results. However as in most laboratory procedures especially in the quest of tumor cells in other body fluids such as ascrine fluid chest fluid cerebrospinal fluid the negative result will have little or no sig nuficance The positive result only 1 of value and may sometimes spare the patient some

- the of re

sults
The methods employed in the laboratory to
demonstrate tumor elements in the urine are
simple. The main principle in the technique
is to present a picture of the tumor elements
as close to that seen in the tissue slide as posible in other words a picture which is simi-

some in other words a picture which is similar to that upon which the pathologit is in the habit of deciding the question of tumor. The method therefore is essentially a histological one.

When I ne m "

another part for histological purposes. To the latter an equal part of oper cent formulin sadded and the whole centrifuged. The sediment may now be pread upon a number of sides allowed to dry covered with a very thun tayer of collection (by pouring randily

ints in an i olated tate from other tissue cell e-pecially epithelial elements when they have been acted upon for some time by a decomposed or even a normal urine within or

of it is spread it may be washed once or twice with strong alcohol provided no fat stain is required.



usual way and stained

The stain used is that which is most common in histological technique namely hæma toxylin and eosin supplemented as required by other stains or microchemical reactions.

The pictures presented by this method in cases of tumor are rarely unequinocal especially when the cells are isolated and the iumor composed of elements resembling in size those of normal transitional epithelium as in the beings or malignant papillomatous tumors peculiar to thee organs. On the other control of the other co

nting r the

upper part b manipulation with the catheter as is shown by their frequent absence in the normally voided unne and their presence in the cathe

n ed amples

of the elements united together in a of an alveolus or tubule suggesting at once the presence of tumor. In hypernephroma the



Try (left) Csc 2 Tagm is i ill ipp m tustm urro dd by blood lb m t tiwpo lygs 4 a d 5 Case 2 Hghrm go fic t ip t Furu e 1

most common malignant growth of the kid ney the cells themselves are often sufficiently

abundantly demonstrated

In general the presence of tumor may be assumed when there are unusually large cells differing greatly in appearance from the almost always present normal epithelium containing stregular nuclei among which are also found multinucleated cells and especially when mitotic fourtes are not infrequent

Needless to mention the finding of timor cells in the unne does not localize the tumor except perhaps the finding of hypernephroma cells but with the aid of the catheter alone this procedure will easily indicate the affected side.

Even in the lower part of the tract the presence of tumor may thus be detected be fore cystoscopy has been resorted to which is a point to be borne in mind by the general

s are of routine

CASE: C G male age 56 years marned ac c untant was suddenly serzed D cember 23 1921 with a tharp pain in the region of the left hip radiat lag to the perineum and inner ade of the left thigh



Fg 6 Sedum tobtaned from the n i pi uff g ith p pill m ts i k dney m t ed



F 7 (left) Same as as 1 F u 6 S ct n fr n peln fkdn ; F 8 High po r fp t fFig re7

form containing one or more (2 to 6) large irregu

returned --

bearing on the case

Phys cal exami ation revealed among other thing a moderately enlarged heart blood pressure 190

division

These cell were interpreted as tumor cells representing in all probability a hypernephroma and their presence in the utine obtained from both urietes naturally pointed to a bilateral affection. Hones r a second catheterization with plugged



Fg 9 Ps to le of tass e fou d sed m nt of a c se ot me to ned in te t. He the d gn sis of malign nt papilloma could readily be made

e , ocyt waste blood cells and apparently nor mai epithelial cells a considerable number of strik ingly large epithelial cells of irregular shape and

534 catheters

remove l

catheters showed the tumor cells to be present in the unne obtaine? from the right sile while that btai cd from the left sile v s entirely free from them

them
At this e amin tim hematuria to ppeared A rath r un uccessful pyelog m (on account of the homaturia) of the right kid v d l not sh w the

characterists features of turror
At op ration a hyperneph oma as found occupy
ng the upp r part of the right kell a high was

In illustrating the value of the cytological examination of the unne in the case in which not only the presence but also the nature and con equently the location of the tumor was revealed by this method it may be pointed out that tumor cell were demonstrable exem at the first examination notwithstanding the absence of gross hamitum;

CASE 2 J 1 male ag 28 years Ital an wool finish r complained of p in a the upper abdomen

A second cystoscopy and ureteral cathetenzation with three sets of samples collected at intervals of 5 minutes yielded a milar results. As in the first ct toscopy plugged catheters were used

The condition assumed to be responsible for

example of the comparatively rare condition in unlateral form was recently diagnosed in the same menner and successfully operated upon on another service of the Buffalo Gen eral Hospital Fhat case will be reported el enhere.

SUMMARY

-

t valuable aid to diagnosis and should be practiced as a routine procedure

2 Its greatest value is for suspected tu mors of the upper part of the tract especially hypernephroma

3 As in most laboratory examinations only positive results are of value

4 Neutroe results may signify besides the absence of turner faulure of communication of the tumor with the lumen of the tract failure of breaking down of the tumor in ability on the part of the examiner to recognize the tumor element due to degenerative changes in the latter or inability to distinguish them from normal epithelial cells

~ ~S

amination

6 Two cases are offered in illustration of the value of the procedure

I et thwir shippee h ppec i DrBjmun FRm frhvld it th peparti of th pap

tance

1 at nt was easily cystoscope! The blatter urine as clear the blad r normal e cept for a

little mo e numerous in sampl fr m the left sale

UNDESCENDED TESTICLE

By S G4\LORD SON\HAND \UD CIEVELAND OBID

HE term undescended lesses is used to one emital an itomical defect

point within the normal to the scrotum

On the other hand the term cctopic t stisrefers to a congenital or traumatic anatomical anomals which is characterized by the position of a testis which lies not only without the scrotum but outside of the normal path of descent

HISTORICAL NOTE

Baron Hiller (4) recognized the intra ab dominal origin of the testes in man and in his Opiscula Pathologica written in the year these the descent of the testis into

of the tests to
dominal viscera He applied this knowledge
to the explanation of con-central inguital her
nia a subject in which he was deeply inter
ested.

In 1762 Hunt r (5) described the situation of the tests in the fetus and its path of descent

of congenital perincil te tes winen e in

As far as 1 known Koch of Munich in 1820 was the first to employ surgical means for the correction of unde cended testicle

Prominent among the taris writers on this subject are Gower Goddrid Cuding and Iocknool Imong the more recent writers for the rime which should be e pecually noted in the cof Vc dam Eccles 1993 [Jacksonian Iriz Leva) Odione and Summons 1994 Coley 1998 Davison 1913 Mixter 1916 and Bean 1918

STATISTICAL DATA

Among the statistical data collected by the War Department (13) from the draft record of the phy ical condition of men registered and examined pursuant to the requirements of the selective service act the figures regarding the occurrence of monorchism and cryp

torchism are of interest

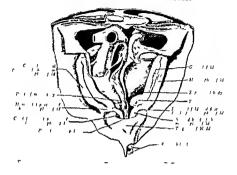
The total number of these cases was 8 538 or 31 per thousand men examined A con sideration of the published tables and charts indicates that these conditions are mo t com mon in the northwestern states. Thus the largest number of these defects were found in men from Minnesota Montana Colorado and South Dakota the incidence in these states being closely followed by that in Idaho North Dalota Washington Oregon Wisconsin and California On the other hand men from the southeastern states should the smallest pro portion of these defects thus the smallest in cidence was found among the men from Ala bama North Carolina Georgia Florida Loui siana Arkansas Tennessee and Mississippi

Cc

tha

zona kentucky. Wyoming and New Wivico In examination of the distribution of mon orchism and expitotchism as indicated by the above statistics suggests that the high in cidence in the northwistern styles and in the more densely populated parts of New England i due to some racial peculanty. These diferts are belief of the feets are belief of see when in the colored race which would account for in the colored race which would account for

tively small proportion of foreign and negro population showed a relative intermediate incidence of these abnormalities. In the of ficial statistical reports no reference 1 made to the incidence of ectopic tests



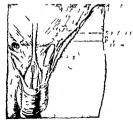
ding

the

EMBRYOLOGICAL DATA

ın

dicated by Coles (2) in his review of the



gatt hm nt of mem Sciem tod awa gab bran us lay r of a perficial fas nt estite i e t p testes a f m r lectop c testes 3 pend e t p t tis

literature in his article on the association of this condition with inguinal hernia. That the subject has not been adequately studied by many of those who have ventured opinions is apparent

Because the anomaly is always of congen ital origin it occurred to the writer that a hrief review of the normal embryological processes which are concerned in the genesis of the testis and its subsequent movement from with in the abdomen to the scrotal sac night be helpful

At a period when the embry o is still a more or less flat three layered disk the middle mesodermal plate splits medially toward the midaxid line and the first vestige of the corlorue cavity (the exocurlom) becomes mani fest At first the latter appears as an angle between the visceral mesoderm and the pan

fold (gonephrotome) hecause from it are de nved in rapid succession the tubules of the

lumbar segment A definite stage of maximum extent however does not occur for the reason that degeneration at the cranial end accompanies caudal growth. As it continues to de velop the urogenital fold undergoes a senes of important changes In the first place with the exception of the cranial and caudal ends it becomes divided throughout its whole extent into a medial genital fold and a lateral mesonephtic fold (Fig 1) After the repro ductive gland (genutal fold) is formed the latter becomes surrounded by a fossa deep grooves cutting into it medially and laterally These grooves however never meet and the portion of mesoderm persisting between them gives rise to the stalk of the genital gland known as the mesorchum. The maymal ex tension of the aniagen of the genital gland as from the sixth thoracic to the second sacral segment but eventually as a result of the degeneration of ten or eleven segments from above downward it extends only over three or four segments Internal descent of the testis therefore never ex ts. What seems to be a descent is actually a shortening

As new structures appear between the two urogenital folds the latter which were parallel to the vertebral column become displaced

The a a

tenstically

Before bending of the body wall is fairly nt ted h

audominal wall on its part at a point almost exactly oppo ite in the same horizontal plane projects a similar knob-like outgrowth-the

enguinal crest-which is directed medially The inguinal fold continues to grow in the direction of the inguinal crest and the inguinal crest continues to grow in the direction of the meninal fold so that eventually the two meet and fuse. In this manner is established what to all intents and purposes is a bridge connecting the urogenital fold with the lateral abdominal wall at a point upon the latter which marks the site of the abdominal ingui nal ring. In the interior of the inguinal crest there is from the beginning a cord of compact mesenchyma-the chorda gubernaculi-which as evident before there is any indication of a differentiation of the abdominal musculature In transverse section this cord has a conical shape with its apex directed toward the in gunal fold and with its ba e almost at the integument When later the abdominal mus culature hegans to differentiate it must of necessity grow around the chorda gubernaculi and in this manner the inguinal canal is formed In the male the union of the guber naculum with the mesonephric fold is exactly opposite the insertion of the ligamentum tes tis (Fig 3) and in the portion of the meso nephric fold between these two insertions there develops another mesenchymatous cord

ment at the base of the genetal tubercle later the depths of the scrotal sac The chorda gubernaculi then is in effect a fibrous and muscular cord which marks the path trav ersed by the testis in its descent. Two proc. esses act now to alter the comparatively sim ple relations which have just been described First the antenor body wall is brought up from a horizontal to a vertical position and second the loops of intestine which he in the exoccelom are taken into the body cavity as it forms These processes are orderly and synchronous and depend on uniform principles of development. It is necessary that the coelomic cavity be sufficiently large to con tain the loops of intestine and this is effected by enlargement of the sagittal diameter

whereby the interval between the anterior and posterior abdoffmunal walls is increased. Since the lower pole of the testis is connected with the anterior abdominal wall by its chorda gib ernaculi it is plain to see that as the anterior abdominal wall becomes progressively more separated from the posterior abdominal wall the testis likewise must of necessity become more separated from that wall. As the lateral (later the anterior) abdominal wall moves for ward the chorda is first made and moves for ward the chorda is first made and then

the long axis of the testis becomes changed from a vertical to a horizontal position and the testis is passively and progressively moved in the direction of the abdominal inguinal and

is acquired in the eighth month or at the latest just before birth

primarily an invagination is certainly a

ing of the antenor abdominal wall does not affect the point through which the gubernacu imp passes. Thus the abdominal wall grows around the saccus if is true however that the vaginal process of the peritoneum does make ats way on through the inguinol canal to the bottom of the tests sac but how this

ous types of maldescent on the part of the tests are really so difficult of explanation as they have appeared to be

sul

MECHANICAL FACTORS WHICH PROMOTE OR INTERFERE WITH THE DESCENT OF THE TESTIS

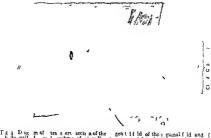
As has been noted above in embryonic de velopment there is a period during which the lateral (later the anterior) abdominal walls grow rapidly and bend ventrally to fuse in the midline thus enclosing the abdominal viscera How this movement affects the movement of the testis into the internal abdominal ring has already been discussed In certain cases coin cident with the crowding of the viscera into the corlum cavity pressure is brought to bear upon the reproductive gland by the stomach and intestine in such a way that the gland fails to make its normal connections in as far as the inguinal fold and the inguinal crest do not come together and fuse and in conse quence the testis in turn is not directed into the inguinal canal That such an occurrence would to ult in the abdominal retention of the testis is of course apparent. It would seem as if many cases of cryptorchidism might be explained in this manner

While one would hesitate to say that all cases of abdominal retention of the tests ocur in this manner it would seem probable that they are due either to such a circumstance as that described above or to some anatomical or physiological deficiency in a chorda which has actually formed. Such an anatomical de

up sharply to the internal abdominal ring but is allowed to ag away from it. Or the chorda

direction of the testi into the ring neverthe less it nould seem reasonable to think of it as a factor of safety in the absence of which the testis may be left behind. Nor is it in conceivable that under stress the chorda might separate at a point of local weshness between the testis and the integument so that the testis would be left behind (Fig 4 b).

Usually abdominal retention of the testis has been explained as the result of peritoneal adhesions wherein it is supposed that inflam



I g a D ag mof the sens sects nof the gent if id of the s guanal sid and s the b dy wall f m i embryo of ro millemeters gent stength h ws g the v h p rts ith hod g be maced (Red was s m Hamon Emb y legs he be) and M ll)

matory processes have bound the testis and pentioneum together behind the internal abdominal ring. The possibility of such a circumstance must be remote.

The true descent of the testis begins only after its entrince into the abdomin il inguinal ing. If the progress of the testis downward is arrested at any point within the inguinal canal then an inguinal retention may be said to evist

The peculiar passive force which was inter preted in terms of growth and which served to bring the testis into the abdominal inguinal ring no longer acts after the testis has en tered the inguinal canal In order that the testis may continue to move downward through the canal three forces it is believed are brought into play These to ces are (1) intra abdominal pressure (2) intermuscular pressure (3) active contraction of the smooth muscle constituents of the chords That the factor of intra abdominal pressure is a very real one is obvious if we are to profit by what we recognize as the cause of the common though unnatural descent through a like channel of a loop of intestine or a po tion of omentum in the form of a herma In a similar manner hardly any one would question the action of the abdominal muscles in promoting the downward profee s of the testis. It is in

ward an evu if an evu evats as in this case it does evist in the form of the subcutaneous inguind ing. The third and final force which acts in moving the testis through the inguinal canal is dependent upon the active power of traction which is evaluated by the smooth muscle of the chords itself. In the words of Lockwood (Hunterian lecture 7). It is in rational to deny this element its function namely that of traction.

We may safely conclude that the failure of any one of these three forces to act properly may contribute to retention of the tests in the ingunial cand. However in addition to these there appear to be other possible causes of nin de cent of the tests through the in gunial canal which have been overlooked. Thus if the chorda is subjected to great stress may not a resultant separation of its fiber or a pulling out of one or another of its mostlions caus, ringunal arrest of the tests? On the part of an actival insufficiency on the part of an appropriate chords or one which is too fibrous and not sufficiently muscular (Fig. 4 de f)?

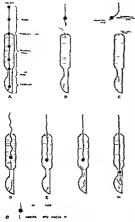


Fig 4 Schem the drawn g 11 strat mg ac d to that m y occur at v rious po ats in ti e co resold e tol th

-was also due to certain well defined forces The forces which influenced the position of the testis while it was still in the abdomen ceased to act the moment it came into the inguinal canal and now in the third stage of its descent the forces which acted in moving the testis through the inguinal canal cease to act when it escapes from the canal Outside the subcutaneous inguinal ring the testis oc cupies an interfascial position in contradis tinction to the intermuscular one it occupied while it was still within the inguinal canal In this position it is no longer subject to intra abdominal pressure acting from above nor is it subject to the peculiar penstaltic inter muscular force that characterized its passage through the inguinal canal This third stage of the journey consists of an excursion over the crest of the pubes into the scrotal sac It is a short trip but a penious one Penious be cause success or failure of the testis to reach its destination becomes the sole responsibility of the smooth muscle of the chorda guber

separate transversely under the stress then the movement of the testis lying free be tween the fiscial planes to any point therein would be limited only by the length of its spermatic cord

ECTOPIC TESTIS

Occasionally a tests in the course of its inigration from the abdomen to the scrotum departs at one point or another from the nor

f ecton a

Immediately upon its escape from the submanneaus inguinal ring the tests enters upon
what may be considered as the third and final
stage of its journey from within the abdonier
to the depths of the scrotal sac. As has been
stated the first stage of its ingration which
terminated at the internal inguinal ring was
due to certain well defined forces. The second
stage—its descent through the inguinal canal

quently

There are four classical types of ectopic

some reason instead of completing its journey over the pubic crest and into the scrotal sac

> or it eurosis fascia

of Scarpa in the region of the subcutaneous inguinal ring or it may slide into a fascial pocket on the dorsum of the penus (Fig 2) or in rare cases the so called femoral ectopia may develop

The etiological factors which produce the three more common types of ectopic testis have been more or less obscure. In 1887 Lockwood (7) advanced the theory of mul tiple subernacular tails. He considered the gubernaculum as having multiple distal in sertions one of these processes extending to the root of the penis another into the penine um another into the femoral triangle an other into the fascial planes in the region of the subcutancous inguinal ring and finally he conceived of one process as ending by fixation to the bottom of the scrotal sac Having imagined the existence of such a chorda it be came a very simple matter to explain the occurrence of any variety of ectopia Thus perineal ectopia for example according to this theory is explained as being due to the development of the perineal gubernacular proc ess in excess of the various other proces es in consequence of which superior traction power the testis is drawn out of its normal path and influenced into the perineum

The correctness of Lockwood's theory has recently been questioned by the writer (10) who has been unable to find any corroborative evidence either embryological or anatomical for the existence of multiple gubernacular processes. In place of this theory a new explanation was offered which was based (1) upon the presence of a chord gubernacula which is functionless following the escape of the testis from the subcutaneous inguinal name

ubcutaneous inguinal ring (3) upon the pe culivity and constancy of the distribution of fascial planes over the lower part of the ven tral abdominal wall and in the perincum and

(4) upon the operation of physical laws which

It therefore became necessary to point out the mechanism by means of which the chords gubernaculi became disabled after the escape of the testis from the subortaneous ringunal ring. Such a mechanism must also harmonize with the occurrence of subsequent luxistion of the corresponding testis.

Accordingly then the forces concerned in the mosement of the tests from the site of its intra abdominal organ to the tests sac together with environmental conditions in the presence of which these force act were investigated. It was recognized that the imparation of the testis could be naturally divided into three stages which could be conveniently designated as (1) intra abdominal (2) intra enabelular (1) extracanhollar (1) extracanhollar.

The forces which act in normally moving the testis through these three areas were studied individually and collectively and the following interesting observation was made

ly well defined force, in each of the upper two areas but that in the extracanalicular area the chorda functioned quite alone and must of necessity be solely responsible for the move ments of the testis through this zone and on ward into the testis sac. This observation it was felt was especially pertinent to the problem at hand for it will be recalled that the object of this phase of the investigation was solely to discover any factor which might contribute to or be responsible for the failure of the testis to follow the normal path of descent from the subcutaneous incumal ring.

In the opmonof the water in all probability the essential factor was a fracture or transverse separation of the fibrous and muscular elements of the chorda gubernaculi in consequence of the excessive stress upon it This conception presupposes that the chorda is the sole source of motive force in the extracanalic ular area. The testis is the passenger. The

essential factor in producing ectopia testis

The subsequent fate of the testis as far as its position is concerned depends upon certain lurther lactors some of which are variable

produces the preceding three varieties of ec topia: Femoral ectopia is due to circum

invariable over the lower part of the ventral abdominal will and in the permeum

Thus if the permatic funiculus is extended and taut at the time the chorda breaks and

present and the chance for a luxation to

law governing the movement of such a body within the limits of an arc prescribed by the

mailable length of its permatic cord Thus the testis may move dominard to the scrot il neck only to find conditions un favorable for entrance into that sae where upon following the course of least resistance it has further down upon the deep surface of Colles fascia into the superficial sac of the nermeum and becomes a permeal testis

Or the testis may receive an impetus toward the middle line and with a shift inclination downward he caught up in a fascial pocket on the dorsum of the penis and become a so-talled penile ectopia

The interstitual ectopic testes are those aberrant testes which are found between the fascia of Scarpa and the aponeurous of the external oblique muscle and commonly close to the subcutaneous inguinal ring

The fourth and final variety of ectopic testes are those designated as femoral this term being applied because of the position of these testes in the femoral triangle clo e to the saphenous opening. The mechani m which brings this about is different from that which

stances which permit the testis to sag retro perstoneally to the region of the femoral ring tbrough which it subsequently herniates dis tally into the femoral canal Because of the tendency of the processus

vaginalis to accompany the testis into its un usual position and because of the frequent failure of its upper portion to become fused to form the normal rudimentum processus aginahs congenital hernia of the indirect type which may be actual or potential is a frequent

feet that under gravity a moving body tends always to establish an equilibrium for itself and to come to rest. That there exist several normal fascial recesses or nockets the interiors

thus becoming available to such testes under the influence of gravity is recognized as is the fact that these fascial recesses are the familiar habitats of the ectonic testis

It would seem reasonable to conclude there fore that the presence of a testis within the confines of such a Jascial pocket is evidence of the successful operation of a law of physics an a definite and favorable environment, and not at all due to the activities of a chords subernacult with multiple distal insertions which cannot be proven to exist

HISTOLOGY OF UNDESCENDED TESTIS

Sections of undescended testes treated by orchidectomy at the Massachusetts General Hospital have ben studied nucroscopically by Odsorne and Simmons (a) and more re cently Uffreduzzi (11) of Carle's Chini in Furm has made a careful microscopic study of unde cended testes These observers have found constant changes consisting in a van

completely or partly to obliterate in all i

of the tubules The spermatogenic cells or the so called epithelial cells of the tubules if present show marked changes from normal being few in number and of irregular shape. Well formed spyrmatozoa are almost never present As for the cells of Ledig to which the French give the name glande intersituelle du testicale and the Cermans Puberlatisthrese it is interesting to note that these elements are present in large numbers.

These changes may be explained as due to chronic inflammator, alterations secondary to the pressure to which the undescended tests is subject. Here as elsewhere the more ingily specialized cell elements are first to suffer and as they are destroyed and disappear the space is taken up by lower prade cells are ording to the phenomena of replacement fibrosis.

EFFECT OF MALDESCENT OF THE TESTIS UPON FUNCTION

Because the testis produces spermatozoa it is known as a spermatogenic gland and because in addition it produces an internal secretion of the nature of an hormone it is also known as an endocrine gland. There fore the testis has a dual rôle in the economy of man

That the removal of the testes in a young individual has a profound effect upon the de

NIOWN Under such circumstances the tissues are deprived of the guiding influence of the sex hormone and those characteristics which we recognize as secondary sexual character istics fail to develop and the individual is a ennuch

For many years the sex homsone has been thought to have its origin in the interstitual tissue (cells of Ledig) and the experimental work of Ancel and Bouin tended to support that theory. In an admirable review in a recent number of the Lancet however Mr. M. Walker (12) offers a number of very substantial arguments in dislayor of the view that the inter tuial cells are solely responsible for the internal secretion of the testis. The question non is very undeeded.

We know that irrespective of the position of the testis whether retained within the ab domen or elsewhere outside of the scrotum the secondary sexual characteristics do develop and such an individual possesses the habits and desires of a normal male even though he may be a double cryptorchid and sterile.

On the other hand testes which fail to escape from the abdomen or are arrested at some point in the normal descent are usually functionless as far as their spermatogenic power is concerned. That spermatogenesis is instituted in all these cases at puberty is probably true and that spermatogenesis per satis in a limited degree for a variable period which at best is but a few years no doubt is also true. Reference has been made above to the microscopic pathology of undescended testis. The fate of the tubules is known.

DIAGNOSIS AND COMPLICATIONS

The diagnosis of undescended tests is not difficult. The corresponding half of the scrotal sacis empty and atrophic. The condition may be bilateral. Palpation may reveal the testis on the public crest just outside the subcuta neous ringumal tang or its presence in the in gunal canal may often be revealed by tactile sense exetted through the ring or through the trissues overlying the nigmal canal.

A potential herina exists in practically all cases of undescended testes. This is due to the fact that in such cases the processus wagin abstests rarely goes through the stages where by the proximal portion normally becomes closed of the form the month of the fact that the stages where the control of the fact that the stages where the stages wh

of

incomplete or complete is the most common complication of undescended testes. Other complications are hydrocele of the cord epididy mutis torsion and neoplasm of the retained tests. That mahignant degeneration is more prone to occur in undescended testes than in normally placed ones is shown quite conclusively by Coley.

TREATMENT

As for the treatment of undescended testis a number of factors must be considered. The

The subsequent fate of the testis as far as its position is concerned depends upon certain further factors some of which are variable. such as the degree of tautness or laxity of the

lationship and continuity of certain fascine (Scarpa's Colles Buck's) which are fixed and invariable over the lower part of the ventral

talls into the femoral canal Because of the tendency of the processus vaginalis to accompany the testis into its un usual position and because of the frequent failure of its upper portion to become fused abdominal will and in the penneum to form the normal rudimentum processus Thus if the permatic funiculus is extended y aginalis concenital herma of the indirect type which may be actual or potential is a frequent

present and the chance for a luxation to materialize is excellent becau e such a testis occupies an interfascial position at this time and is free to move according to the physical

Thus the testis may move downward to the scrotal neck only to find conditions un favorable for entrance into that sac where upon following the course of least resistance it slips further down upon the deep surface of Colley fuscia into the superficial sac of the perincum and becomes a perincal testis

Or the testis may receive an impetus toward the middle line and with a slight inchnation downward be caught up in a fascial pocket on the dorsum of the penis and become a so called

nemie ectoria

The interstitual ectopic testes are those aberrant testes which are found between the fascia of Scarpa and the aponeurosis of the external oblique muscle and commonly close to the subcutaneous inguinal ring

The fourth and final variety of ectonic testes are those designated as femoral this term being applied because of the position of these testes in the femoral triangle close to the saphenous opening The mechani m which brings this about is different from that which

fect that under gravity a moving body tends always to establish an equilibrium for itself and to come to rest. That there exist several

produces the preceding three varieties of ec

topre Femoral ectopia is due to circum

stances which permit the testis to sag retro-

pentoneally to the region of the femoral nor through which it subsequently hermates dis

to become luxated may move these pockets thus becoming available to such testes under the influence of gravity is recognized as is the fact that these fascial recesses are the familiar habitats of the ectopic testis

It would seem reasonable to conclude there fore that the presence of a testis within the confines of such a fascial pocket is evidence

HISTOLOGY OF UNDESCENDED TESTIS

Sections of undescended testes treated by orchidectomy at the Massachusetts General Ho pital have been studied microscopically by Odiorne and Simmons (9) and more re cently Lifreduzzi (11) of Carle's Clinic in Turin has made a careful microscopic study of undescended te tes These observers have found constant changes consisting in a van

The principle of this technique depends on the direction of the spermatic vessels immediately above the beginning of the spermatic cord at the abdominal inguinal ring and the possa bility of lowering the whole cord by transplanting it through an incision in the transversalis fascia with or without preliminary ligation of the deep epigastric artery This procedure is hardly ever required but the advantage it offers should not be lost sight of should the occasion to use it arise

Having placed the testis in the scrotum without tension, the inguinal canal should be closed according to the modified Bassini tech nique without transplantation of the cord Should the cord be transplanted after the true Bassini method then from o 5 to 1 inch of the available length of the cord will be sacrificed and that tends to defeat the purpose for which the operation is undertaken. The conjoined tendon is sutured to the inguinal ligament over the cord Especial attention is used in placing the lowermost suture which should catch up the conjoined tendon and the reflected por tion of the external oblique muscle and the inguinal ligament Provision is thus made for a very small subcutaneous inguinal ring

which is desirable should retraction of the testis occur

> REFERENCES ~ D m D D

HALLER BARON Opuscula Path 1 orca 1755

HUNTER JOHN Tr atise on Animal Economy Lon don 1785 KEIBEL F 2 d MALL F P Human Imbry logy

Philadelphia of

Lockwood C B De elopme t and transition of
te tes norm 1 and ab ormal Hunterian Lectur

te tes porm I and an ormal printerian sector
Brit M J 1887 I 444 fio

8 Mexica C G Undescended test cle in children
B ton M & S J 976 clxx 53;

9 Objects W B and Station's C C The unde
scended tests Ann S 73 Philadelphia 1904 1

o Soungland S G Congenital penneal testicle Ann

S rg 1974 lxxx 716-727 se nz del test culo rit nuto Cior d r Acc d di

med d Torino 200 4 xvn 36-42 2 Watker A M Internal secret n of the testis Lancet 10 4 1 6-26

3 WAR DEPARTMENT Defects found in draft d men State t cal Inf rmate n compiled from Draft Rec od or

SOME OBSERVATIONS ON THE ENTRANCE OF BILE INTO THE DUODENUM

BY A WINKELSTEIN MD NEW YORK CITY From h Med al Depa tm feb M Sat Illoson 1

TT was suggested a year ago! as a result of some experiments on the dog that the respiration is the motor of the gall blad Since then further studies on this sub tect have been made in the Department of Experimental Pathology at Columbia Uni

tioned here

J Am M Ass 3 lexes and Aschmer P W T h Winklet A. Nunklee A IM Sc.

The importance of the increase in the intra abdominal pressure due to respiration has been confirmed From a study of the differ ential pressures existing in the hiliary duct system it has been demonstrated further more that the rise in the pressure within the gall bladder resulting merely from the increase in the tonus of its musculature and elastica (no gross contractions were ever observed) is not enough even when the sphincter of Oddi is relaxed to force bile from the gall bladder into the duodenum. On the other hand the intra abdominal pressure at the end of a

ma

malte

anomaly is congenital and if no complication arises such as those method now which complication in itself demands operative treatment then itself demands operative treatment then is no occasion for intervention until the child is no or 12 years old. As has been stated the endocrane function of the basis is uninfluenced by its position. More too to increase the child reach will be such as the child reach the child reach of the property childhood. Should the child reach 10 or 12 y cars of age without the tests having

simultaneously the potential or actual as

There are very good reasons for advocating the correction of undescended testes at the age of to or 12 years. At approximately 14 years of age the child reaches the stage of puberty—the process of spermatogeness is

tubules. If the age of puberty is reached and passed without the testis having been brought down then the degree of good so far as the

be anticipated as a result of operation has been generally considered to be 21 years. However one may not always be sure of thus point and therefore the operation should be done irrespective of age in all cases of inguinal retention for in this manner only may the

OPERATIVE TECHNIQUE

The operative procedure most likely to give the best results is as follows. Through a Bassini incision the inguinal canal is opened m its entire extent. The proce sus vaginals is carefully separated from the cord just promined to the testis and a ligature is laid about it at this point. The processus is then divided transversely just below the ligature and Irom its lower portion a tunica is made for the testis by the purse string method for the upper portion of the processus up to the in gunnal ring is then very carefully separated in the proper cleavage plane from the under lying constituents of the cord. The neck of the empty sac is transfixed and ned and the pendulous pertinenum excised.

and isolating the cord into its component parts usuall; sufficient length will have been obtained to permit the proper placing of the testis in the depths of the scrotal saw which has been previously invaded with the fineers

has been previously invaded rath the his-ers
and stretched vigorou by in all direction.

If however the cord is still too short to
permut the proper disposal of the test, in the
scrotal sac then traction is made on the te

around the peritoneal stump at the internal
the
the
style
from the extrapentoneal fat in which

spermatic veins be so short as sim to provide the desired end they may be divided between ligatures. The spermatic artery should be divided only after every possible effort to save it has been made.

In event the cord is still too short the tech mape of Davison (3) or the Mitter (8) modification of Davison's procedure should be used parently always present in the common duct of the lasting animal yet after the bile enters the duodenium the chemical and dulting fac tors there may cause considerable change in its appearance. Nevertheless in nearly all normal lasting patients the dark spectmen is recovered after the instillation of magnesium sulphate and the subsequent manipulations to increase the intra abdominal pressure. Microscopic examination of sediment viter centrifugulization at high speed for 15 minutes seems to be of greater disensitie inspirators.

We have attempted during the past year to confirm this test in the human by the use of dyestuffs. During the animal experiments and in some studies on cholecystectonized humans it was found that intravenous phenol tetrachlorphthalium was almost completely exercted in the bile within 2 hours a very

above performed. In some cases the Meltzer Lyon technique was employed without the manipulation, to increase intra abdominal pressure. The dark specimen contained a heavy frice of dye. After increasing the intra abdominal pressure the specimen obtained dark or light contained a still larger amount of the dyestuff. This seems to indirect that the specimens containing more than a faint trace of dye stiff crue from the gall bladder trace of dye stiff crue from the gall bladder.

A further attempt to investigate the experimental and theoretical foundations of the test is being made now by means of roentigenographic studies of the gall bladder as visual ized after intravenous phenolectrabromphthalein (Graham)

Although our chinical experience with this method is as yet insufficient to warrant a discussion of its comparative value yet the re

known at present. There is also the possibility which we have not yet uncountered that bite otherwise unobtainable may be secured from the gail bridder in this manner it appears to be applicable not only in the diagnosis but also in the prophylaris and therapy of the disease of the bib in tract.

SUMMARY

Obst vations on some experimental studies on the entrance of bile in the duodenum are mentioned. Apparently an increase in intra addominal pressure squeezes bile out of thic gall bladder into the duodenum when the splaneter of Odds is relaxed. It is suggested that in addition to relaxing the splaneter of Odds by the administration of magnesium sulphate manual and other methods (cough ing bending deepened respiration) to in crease the intra-bidominal pressure may prove to be, of value in obtaining bile from the sall bladder of naturals.

normina as ma

crease of the intra abdominal pressure actual ly does squeeze some bile out of the gall bladder into the intestine has been demon strated by our experiments in which dyed bile was forced from the gall bladder into the duodenum with each in pration when the splunder of Oddi was kept patent by means of a small elass cannula.

It was found possible furthermore to empty the gall bladder manually. For after given on the gall bladder manually. For after given gatopin to relax the planeter of Oddi vigorous lateral pressure on the loner thorax and upper abdonien caused an almost complete expulsion of the blad from the gall bladder into the duodraum. Abramson working independently in the same laboratory had made similar observations with reenigeno graphic studies! He was able under the fluoro cope to squ eze manually out of the fluoro cope to squ eze manually out of the squi bladder a reentigen opaque solution (neo-silvol) into the duodnum even without previous relaxation of the sphuneter of Oddi.

The quantity of bile expelled into the duodenum depends on several factors (1) the degre a. of direction of the relaxation of the sphincter of Oddi (2) the morea on the intra ibdominal pressure (3) the quantity of bile in the real bladder (4) the elastic tension of

with the cystic and common ducts

Experiments and clinical experience have shown that the first three factors are more or less readily controllable. The fourth viz the tension of the wall probably depends on the individual elastic and muscular arrangement and intribubility on the quantity of bile present and on the innervation tonus. While it is perhaps important it is obviously difficult to control. In regard to the last factor, the position of the gall bladder, there appears to

extrems angulation may be encountered. Obviously, the less kinking the more easily will the gall bladder be emptided. It may very well be that this variability in position i the most important factor either temporary or permanent in changing the rate of emptying as well as filling of the gall bladder in any given instance.

gests itself Reduced to the simplest terms the procedure consists in increasing the intra abdominal pressure and relaxing the sphincter of Odds simultaneously. The technique which we have employed in obtaining bile from the gall bladder of patients is as follows. The duodenal tube is passed in the morning through the fasting stomach in the usual fashion. After the entrance of the bucket into the duodenum a duodenal specimen is col lected by siphonage or aspiration. Sixty to 70 cubic centimeters of narmed at per cent magnesium sulphate (3 per cent peptone sola tion or olive oil may be substituted sati lac tonly) is injected a minutes being con umed by this injection. This solution is then at lowed to siphon off for 5 minutes The pa

lowing may be thed successively (1) very deep inspiration and expiration (2) coughing (3) a prolonged expiration followed by a cough (4) anteroposterior pressure in the region of the gall bladder with the vigorou

upper trunk on the abdomen and (7) com

and

es oub

lications containing the experimental data

CASE 1 II T male age 7 admitted to the National Military Hospital August 17 1923 had taken for 4 days before admission and vomiting

76 td ...

per cent glucose solution were given intravenously

Under a local anæsthetic a gangrenous appendix was removed and drainage instituted After the abdominal incitor was closed the patient was given 500 cubic centimeters of a 10 per

glucose Three hours later under ether anxisthesia the patient cas operated upon and the urine examined at this time showed acetone 2 plus and diacetic acid s plus Sugar was now Fre ent in the

to 15m ii Lilly was given hypoder

the beginning and end of administration. The e hours later the acetope and discetic acid had

time the urine showed cetone 2 flu. This was quickly controlled nith 500 cubic e ntimeters of glucose and 20 units of insulin Convales ence from here on was uneventful

Pre-operative acidosi when present is a evere complication of the surgical condition

give the surgeon much choice in the matter because of th

were at their best time consuming and always uncertain as to results especially when the acidosis i intensified by the operation The second case of pre-operative acido is in

our series demonstrates the specificity of the insulin glucose method of treatment even more emphatically

CASE 2 \ A H male age 46 a im tted to the

atively poor surgical risk was quickly transformed into a fair or good risk. It is not at all necessary to wait for the disappearance or diminution of the acetone and diacetic acid from the urine before pro eeding with the operation and when the time element is an important factor this procedure can be car med out during the course of the operation for in the cases thus far recorded the action of the glucose in combination with the insulin has been specific and can be depended upon Since glucose is in itself a diuretic and tends to deplete the body tissues of their fluids it is our custom to administer fluids by rectum

Thus in this particular instance a compar

simultaneously with the administration of the We had the opportunity to compare this method with that of glucose alone in another patient

invulin and gluco e

Case 3 Following a closure of a gastro-enter ostomy th n

INSULIN-GLUCOSE TREATMENT OF SURGICAL SHOCK AND NON-DIABETIC ACIDOSIS¹

BY DAVID FISHER M.D. AND EDMUND MENSING M.D. MILWAURER WISCOMS N F on the S rescal Sect fith & toon IM I my Hospe 1 Milwauker Wincomen

NF of the major difficulties that may arise as a consequence of the adminis tration of an inhalation arresthetic is postanæsthetic tovæmia (12) Acitonuria aceton emia and acidosis are terms applied to undesirable delayed or postanæstheticeffects The symptoms of a pre-operative or post operative acidosis include vomiting acetone bodies flushed face dry lips weak rapid pulse restlessness and unconsciousness These effects are somewhat more pronounced with chloroform than with other and many deaths have been reported due to postoperative acido is (3) Ethylene seems to diminish to a large degree the tendency to postoperative 2ntimo/

When we consider the causative factors of a pre operative acidosis we are compelled to include in our determinations the surgical con dition usually acute in nature that the acidosis accompanies. It is evident that this is a very serious matter not only because the nationt has an acidosis but because in the large majority of cases immediate surgical

ing leads to a vicious circle of cause and effect which may be severe enough to produce coma and death

with the usual supportive measures added 1 wish to tell you this evening of the results I have obtained in pre operative and postoper ative non diabetic acidosis by a very simple procedure based upon a scientific physiolog ical rationale, and of how this same rationale

distinct clinical basi. Since insulin causes such a rapid disappearance of diabetic acido

publication he gave a new impulse to the use of insulin by reporting three cares of post operative acidosi treated with insulin in which there was almost an immediate cessa tion of comiting and ketosis. The reults obtained were more rapid and more certain than by the use of glucose alone This immedi ately opened a large new field for the ther apeutic use of insulin one unforesten by its original investigators and if properly placed upon a distinct clinical basis puts into the hands of the surgeon a potential remedy for a complication most feared heretofore

A short time later it was my privilege to observe three cases of pre-op rative acido is due to starvation and incessant vomiting induced by a ate abdominal conditions. The

(8 11 15) The former method of treating a pre operative or postoperative acidosi have been very uncertain and very unsatisfactory the general treatment being glucose and alkalies

type as specific as in the cases of postoper ative acidosis which have been reported by Thalhimer

The thora h treated taxes eccusfully

Read before h joi t meeting I he Chicago Medical Soci ty 4th Chicago Soci Cy I Amesth huts, Chicago h vember 9

mechanism the chinical pictures seem to be identical When we consider the histological pathology of shock we are on a little firmer ground The organs especially involved in shock are the thyroid adrenals brain liver and muscles. This constitutes figuratively speaking our kinetic system which contains potential energy delivered as a result of en vironmental stimuli Crile (s) working with animals has shown that constant stimuli sent to the organs of the body involved in shock cause a hyperchromatolysis then a hypochromatolysis of the cells or in other words a state of exhaustion. He then showed that the brains of humans dving of infection and eclampsia show the same condition. In other words shock may be considered as the result of an intruse stimulation of the kinetic system by physical exertion amotion trauma toxins anaphylaxis etc. which leads to physical changes in the kinetic system and which if carned far enough exhausts that system The Linetic system continues to be activated so long as there is life but normal activation does not produce exhaustion. The difference between normal processes 1 one of intensity and not of kind

The theoretical and laboratory aspects of this problem have recently been further studied by Levine Gordon and Dernek (13) working at the Feter Bent Brigham Hospital in Boston They studied the changes in the

phy scal condition of the runner at the finish Those who had a normal blood sugar content showed no signs or symptoms of shock. Four runners who were markedly prostrated and in fact one who was unconscious had a very low blood sugar and presented the typical picture of an overdose of in uhn with its attendant hypogly centua.

With all of this evidence before us it readily becomes clear that to combat the symptoms of shock rationally we should device some method whereby the body can be fur not had

Having had such excellent results with misulin and glucose in non diabetic acidoses remembering Thallaimers (18) results with insulin and glucose in the acidosis of the toximic vomiting of pregnancy and taking not consideration the work of Crile Levine Gordon and Derrick I felt that glucose intravenously ind insulin subcutaneously should successfully combat exhaustion or shock and furnish the body immediate available energy. We soon had an opportunity to try this method of treatment. I wish to men thin the following cases; as being typical of the action of insulin and glucose in our hands in the treatment of shock.

CASE 1 Mr J B age 80 had the second stage of a two stage prostatectumy done. Just before he close of the operation the pulse went to 770 respiration became shallow cate 38 the blood pressure full pul e became weak thereby the skin cidd wet dammy; and we realized that e were dealing with a case of intense shock. The patient was put to bed insuredually and given i coo cubic estimates of a 120 per cent solution of glicose in traveously and 8 minutes after the flow commercid was given 15 units of U 20 insulin sub-meaned was given 15 units of U 20 insulin sub-meaned was given 15 units of U 20 insulin sub-

at d then at morning the patient was sugar free and convalescence was uneventful

The result in this particular case seemed to be miraculous and we can ascribe it to nothing other than the insulin and glucose

Case 2 Mr A A was operated upon for periorit

divided doses. Two hours following the administration the patient began to react favorably and of hours following the oper tion the pulse rate was 102 resp aton 10 temperature 1012 the skin warm and the general condition excellent

"The thorn have tree d cases accessfully

nger

As compared with Cases 1 and a greater length of time was consumed and yet the

much more encacious and rapid than glucose

I will not hore you with the details of the other cases treated with insulin and glucose except to say that the results were rapid and

desired results obtained and obtained rather

alone the results are uncertain. To give insulin alone is really dangerous because we assume the presence of a sufficient available quantity of carbohydrate in the body which is usually not the case in these non diabetic conditions.

The exact nature of the ketosis is still unknown however it seems that the primary factors are either insufficient carbohydrate intake or perverted carbohydrate metabolism or a combination of the two. In the diabetic

fats completely or when there is an insufficient carbohydrate intake. In the nondiabetic type of acidosis under discussion we are dealing with a vicious circle vomiting occurs preceded or followed by Letosis preventing carbohydrate intake accessary to burn fats with a resultant aggravation of all symptoms

individual with normal metabotism. It seems that the introduction of the insulin supplies the unknown factor in non-diabetic acidosis to

make immediately available for body needs the introduced carbohy drate. Since time is always an important factor in pre operative or postoperative acidosis the tremendous advantage of insulin and glucose over glucose alone can be readily appreciated.

In the method of the combined administration of insulin and glucose in the treatment of non-diabetic acidoses it seems that we have a therapeutic vehicle almost specific in action effective in a very short period of time which can be repeated as often as is necessary. At the will of the operator it seems to control the very delicate metabolic halance of the organ ism as in our first case, in which after 36 hours of no food intake the acctone again appeared but was immediately driven off by another intection of insulin plus the intrave-

that the severe comiting in non-diabetic acidosis causes a decrease in the available

When one dares to speak upon the subject of shock he tread upon dangerous ground and sails upon a poorly charted sea. But this very lack of definite knowledge is the impres sive reason why we should attempt to cor

vanous causes such as fear worry physical tratuma towns infection humorinage excessive muscular evertion starvation and in somma. The exact mechanism or physico chemical changes taking place in the production of shock are unknown. The theorie evaluating this are legion and need not be detailed here for the purposes of this discussion every to mention briefly that the blame has been laid to capillary distention distattion of the splanchim vessels fat embolism absorption of towns from train matized trisses etc. Whatever the cause or

the veins at a very slow rate so that the time ol administration is at least a hour the longer the better The amount of insulin used de pends entirely upon the amount of glucose injected For every 3 grams of injected clucose I unit of U 20 insulin should be used and if H 20 insulin is used then r noit for every 2 grams The total amount of insulin to be given should be divided into equal doses and I part given 5 minutes after the beginning of the clucose administration and the remain der at the end of the administration So long as glucost appears in the unne one need not fear an insulin reaction for this acts as a safety guide and shows that there is more glucose present in the blood stream than can be taken care of by the introduced insulin

a rapid elevation of the blood sugar effect of a small dose of insulin is decidedly increased by a previous intravenous injection of ergotown Insulin greatly reduces the hyperglycamic action of epinenhan At the same time I do not wish to leave the impres sion that insulin and glucose are a panacea for all evils yet I do wish to say that in all the case thus far recorded of pre-operative and postoperative non diabetic acidosis and in 6 cases of surgical shock its action has been specific certainly far more efficacious and rapid than by former methods. This does not mean that insubn and glurose will take the place of a blood transfusion in shock caused by great loss of blood, nor does it mean that

in order to counteract the tendency of the glucose to deplete the tissues of the fluids

Ib al oa = 1

Aside from the above conditions. I have successfully checked the ince- ant vomiting of acute pentionits with insulin and glucose. We use it in all of our postoperative stomach cases particularly in ulcers and resections feeding the patient through his veins for days at a time. Barbour (3) has administer insulin in 12 non diabetic cases with good

In the first place the introduction of the glucose into the blood stream raises the circulating fluid volume the eby helping to remove the sustaining factor in shock. The introduction of the insulin causes a rapid ordation of the glucose in the process of this

inamition 2 of acute nephritis and in 1 case of a normal infant

are enough ea es on record to demonstrate

metabolic functions. The body cells when in a normal state possess remarkable powers to adjust themselves to changing conditions and in conjunction with the builter salts of the blood stream can usually emerge from a state of internal asphy or and acidosis. In shock I cannot help but believe that the heat energy supplied to the cells by the rapid ouddation of the glucose at a time when normal ouddat rec processes are checked or held in abey ance is a tremendous vital factor in initiating the process of recovery of the cells.

are though ea es on record to demonstrate this. It is important to remember in connection with this that certain drugs used simul-

Aub (t) has studied the decrease of the metabolic rate in shock. In 8 cases of severe shock the average decrease was 33 per cent. He learned the has 6.11.

diminished sometimes abolished when subcutaneous injection of extract of the postenor lobe of the pituitary gland are given with insulin. Pituitaty extract removes the symptoms of hypogly carnic convulsions and causes

enous

splen

Case 3 Mr F P had an exploratory thoracot omy Severe hamorrhage was encountered. The patient was returned to bed in intense shock. The

552

(14)

introv ordation of the introduced glucose supplying energy so sorely needed Since time is always an important factor in the treatment of shock the tremendous advantage of insulin and glucose over glucose alone can be seen. The

later the temperature was on 2 pulse roo respe ration 22 and he had completely emerged from the state of shock Case 4 Mr P O age 45 was operated upon for perforated duodenal ulcer It was found to have

diabetes

perforated into the pancreas and a good deal of

vomiting of pregnancy and eclampsia and I feel that independent clinical investigations will confirm these findings in the treatment of chart

hours later the pulse was 210 temperature oo 6 respiration 24 and general condit on good CASE 5 Mr A L age 14 was admitted for acute

The value of this method of treatment has recently been confirmed by Ginsberg (10)

fracture of the twelfth dorsal spine. All the usual

He treated a boy sged II suffering with a left Pott s fracture with contusions of the chest and abdomen The day after the injury the patient vomited incessantly and went into shock. The pulse

centimeters of glucose were given intravenously and

dently a sudden seriou derangement in the carbohydrate mechanism of the body due to some un known factor as ociated with the trauma com plicating the accident. The parents were questioned closely but the history showed no evidence of

Previous to this time we had been employ ing the usual measures in combating shock

> The sudden recovery with the blood sugar lowered to normal and maintained at normal

much greater We attempted measures to

METHOD

In shock as in nearly all abnormal conditions we have a state of perverted body metabolism In addition to this the entire system is in a state of exhaustion and to

A sterile solution of glucose is used prefer ably of 10 per cent strength Five hundred or 1 000 cubic centimeters may be given depend ing upon the seventy of the condition The usual precautions for intravenous medication are taken The solution is allowed to flow into

cannot always do this satisfactority or quickly

۰

11

because the surgeon has forgotten to smell the fatient's breath or to look at his tongue or to do a urinalysis. The reverse is also true when a diagno i

> As to the question of traumatic shock mentioned by Dr Lewis I have cited several cases that have

AL PERENCES

- t Aus J C Am J liyst 1 920 h 358 2 Barrour O In ulm in non-diab te chil lih o
 - BEV N nI l'AVILL J lm 14 1 5 190 Septemb r
- 4 BURN J II Modification if action of insuli by puts tary extra tash lithers but nees J Phy 1 Lord 19 3 1 1 3 8
 5 Child and Lower Anost Association Philad lph a
- 5 CHIE and Lower Anni Association Philad lph a W B S und es & C pre 6 Editorial Insul nd ketos 5 J Am M Ass. 924
- birth 1694 and Page II I Cheer attors on the
 - Powards D] and Page II I Obser ations on the

the pancreas and I wonder wh their the hypoglycemia and the associated clinical complet presented following operation do not arise from a physiological enhaustion of the insulin normally resident in the pancreas and whether that exhaution in the pancreas and whether that exhauhave been described. If this is the case would it not seem the logical thing and is if not the physiologic I bass for ID: Fisher's work to replace attribute.

the most valuabl contributions ever placed at the disposal of the profession. It is realized more and

quest on we must remember that insul n is prepared outside of the body and the cells of Langerhans are no longer connected to the central and aymosthetic

- 7 TH LERINER W. I sol n tratm nt of n n labet postoperate excidost J hm M A s 1923 In x 8 Id m. In uh tratment of th to zmc n t s f pregnancy J Am M Ass 9 4 I xx 60'

0 100

metabolic rate. In addition we know from the work of Edwards and Page (7) of Cornell that the intravenous injections of glucose pro-

our theorizing however clinically the method appears to be efficacious and in the final

analysis that must be our chief enterion.

This whole question of insulin in nonthabetic conditions is summed up aptly in a
recent editorial (6) in the Journal of the
American Medical Association. Speaking of

Ihallamer I isher and Snell through the combined use of insulin hypodermically and glucose intravenously. It is far too early to generalize too broadly from the few successful treviments recorded but there is sufficient background to the project of testing the curs that powers of insulin and glucose in the treat ment of permisous somiting and other comparable conditions to warrant giving it careful consideration. The procedure is not free from some element of danger that should not be minimized. Insulin therapy demands care in the case of the diabetic doubly great is the need of creat in the nor diabetic.

YZAWMIZ

In a series of pre-operative non diabetic

e us e miloquieu into the

Dr Fisher s wo k opens up a ew field first the mechanical factor of the introduction of insulin then its biological action upon the glucose. In addi

-) the ketosis has more rapid than by the use of glucose alone
- 2 Five cases of surgical shock are reported in which this same medication caused a rapid cessation of the typical clinical symptoms of urgical shock more rapid and certain than

I with to thank (I D I) U D I ublish these reports

DISCUSSION

DEAN LEWIS Chicago I am much interested in Dr. Fisher's paper but I h d hoped that he would As to the question of diagnosis men working in a general hospital are freque tly called in to see ing was painful. A profuse diarrhoea of a small watery green h offensite stool de veloped Cultures for Kelebs Loeffler a bacultus were positive from all sites on the fifth day after the patch appeared. Her conditions be came worse heart action becoming irregular and she died on the site earth day after the first patch was een although she had received at no units of antitions.

I cendertz (6) reported an interesting case of primity diphtheria of the vagina with post liphtheritic paralysis producing difficulty in drinking and speech bilateral prosis and

at ixia in a 514 year old girl

***** AC**

Although diphthentic vagmit is uncommon, yet the incidence of true Alebs Loefiler bacillus vame from 0 per cent as reported by Lonna and Meyeningh (8) to 33 3 per cent by froer I retz (7) isolating them in 14 2 per cent and Wauschkulm (16) in 5 per cent Clesa reported early in the literature which were diagnosed on the presence of the mem branous lesson cannot be convidered because of absence of bacteriological vidence Other organisms such as enterooccus streptococcus and ordum albicans (13) can also produce membranous lessons

The histories of the present cases are as follows

eromargum ous foul varianal discharge. The condition was diagnosed threatened alortion with sepais. She was transferred to pathological obsets ros on Dr. Hearry F Lewis service. Hert. I found on examination in optibology of head pharwar neck or chest. The abdomen was round soft flaccid and with attre gravidarum. The liver spleen and beloneys were not palpable. Sight ten

The cervix was hard nodular irregular closed and pointed do a and forward. The corpus was firm retrovected to the second degree not debutled, related and free The alnexa vere not pilpable and the formners were not tender. The examining fagers were co ered with a foul serosanguineou discharge.

Speculum examination should a greenish gray

r i smears showed many streptococci and staphy

diphtheria antitorin were given intramusculorly. The patient tett better generally except for weakness

tures from the throat and vaging were negative for kleb Loeffer bacilius therefor the patient wa allowed to go home

The second case is a diphtheritic vulvo vaginitis

Mrs M P No 869564 a primiparous white oman 333 cars old entered Ward 510 Cook Counts Ho putal on De ember 29 1023 on Dr Lees erisce she was in fabor the first tage being 11 hours

DIPHTHERITIC VAGINITIS'

REPORT OF TWO CASES

By ABRAHAM & LASH M.D. CHICAGO Cook Cou Histl D pates tit ectevit elv (Illen

▶ IPHTHI RIHC vaginitis occurs so rarely that it is reportable. One of the following cases is especially worthy of report on account of the various diagnoses made in this particular instance

Diphtheritic vaginitis occurring during the

in children of which lew were confirmed by bicteriological examination. I rimary diph thera of the vagina occurred in 6 of the 26 croses in to instances bacteriological exam mations were made and in 6 virulence test were made The duration of the disease was r to 4 weeks There were four deaths in the 26 D Cases

The youngest patient with diphthentic vaginitis was described by Vasile (15) this

woman age was not given. She entered Belle vue hospital and was thought to be suffering from alcoholic neuritis but on the third day

h m mh ne hlead a

mation. (No smears or cultures mentioned) History stated that the patient had been ill for about 3 neeks previous to going to hos pital. The temperature on admission was 99 degrees F in the morning and 104 degrees F in the evening which continued for 6 days when the evening temperature rose to 105 degrees I For about 24 hours before death she had a profuse distringa. The specimen was interesting because the uterus and the appendages were perfectly normal although the entire vigini was covered by a very - The Th

s days before and treatment was instituted on the sixth day the child died of cardiac failure due to the grave toxemia

Salmon s (12) case of a woman 55 years of are with diphthentic vaginitis is the oldest

the condition in their textbooks while I olak

n days ed the

exanthemata that in the chronic form it usually occurs in patches and seldom involves the entire vaginal mucous membrane

In 1923 Van Saun (14) investigated the literature for the last 30 years and was able to find only 26 cases of diphtheritic vaguntis

vulva lined the vagina and the visible mu cous membrane of the rectum There was very little swelling and only a scanty sero purulent discharge The membrane extended

9, ad befete the Chic to Cymerolo al Socie y December 3 9 (F disc tale seep 58)

ing was painful A profuse diarrheea of a small water greensh offensive stool de veloped Cultures for Klebs Loeffler; bacillus were positive from all sites on the fifth day after the patch appeared. Her condition be came worse heart action becoming irregular and she died on the sitteenth day after the first patch was seen although she had re cerved 21000 justis of antitionin.

Leendertz (6) reported an interesting case of primary diphthena of the vagina with post diphthentic paralysis producing difficulty in dinking and speech bilateral ptosis and

ntana in a 5½ year old gri
Although dhiphtentic vagnutis is uncom
mon yet the incidence of true klebs Loeffler
bacillus varies from o per cent as reported by
Broet Lets (2) isolating them in 142 per
cent and Waischkulm (16) in 5 per cent
Cases reported early in the literature which
were diagnosed on the presence of the mem
branous lesson cannot be considered because of
ribence of bacterological vidence. Other
organisms such as entrooccus streptococ
cus and ordum albicans (13) can also produce
morbitanous lessons.

The histories of the present cases are as

M nc

hι

2

ma

l r:

at the age 1 to years occurring e ery 28

beg at the age 1 10 years occurring e er; 23 lavs lasting 4 10 5 lays with no pains. The last period occurred on August 14 1924 (Fine neeks before her present illness.)

on examination no pathology of head pharyny neck or chest. The abdomen was round soft flaceid and with strike gravidarum. The liver spleen and kidness were not palpable. Shight ten

The cervix was hard nodular irregular closed and pointed down and forward. The corpus i as firm retroverted to the econd degree not definitely en larged and fre. The adness were not palpable and the formices were not tender. The examining finger were covered with a foul serosanguineou discharge.

Speculum examination shoved a green sh gray thick (a continueter) membrane lining the vagina On removing this membrane with a forceps bleed lag points wer left

Direct smear and cultures were made from the

i ui nuu matemal

n non material

of

ed to go home

The second case is a diphtheritic vulvo

Mrs. N. P. No. 869,561, a primp rous white moment 3314-30 off content Mrs. 4714 50 of Cook County. Ho pattl on December 30 1923 on Dr. Lees serv. It of the server is the server of the server in the server in the server is the server in the

On January 1 1924 she developed a temperature of 1024 degrees pulse 71 and complained of pains

in the abdomen Examination revealed tenderness and resistance or the left lower quadrant and the uterus firmly contracted. The following day her temp rature vaned from 996 degrees F to 1008 degrees I A 300 pictous membrane was noted on the laba on Janury 3 1934 a smear revealed phthera like bacifi A culture grew Klebs to Goffers bacilit therefore, ooc units of diph

Irequent vaginal examinations When recognized the condition must be treated by fairly large doses of antitoxins. Also precautions must be instituted to prevent secondary in fections of the other mucous membranes.

4 The present cases were diagnosed be cause in the first case a vaginal examination was made which was accompanied by bac tenological examination. The membrane was visible in the second case and cultures were studied.

lence test was done on February 2 1924 but the

CONCLUSIONS

I Diphthentic vaginitis is uncommon as reported in the literature. At Cook County Hospital only one case of postpartum diphthentic vulvoviginits was observed in approximately 7 500 deliveres.

- pn the

late recognition of the condition due to in

REFERENCES

M Hams.)
6 Liceovers Med. Kis 90 zv 151
7 Lices Monatach / G b rish Oyn k 191
8 Down a d Messenson Z traibl f Gyn k 9

Der Quoted from Williams
And Ann de rende, t d bat 1896 ziv 350
(Qu ted from Williams)
POAR T live Inflammatio in W m 93 10
SLAMP Am Med 964 wil 391 304
SMONZARZE P naryl and M 953 7

3 SOCKARZE F SHAW I BLANK 1 J 11 J 4 NA SAUE J Infect Dr 943 1 4 5 NASILE Pedatra 1994 EXXII 557 559 6 WAUSCHKUEN Ze traibl f Oyna k 9 Nr 57 7 WE STER Textbook of Obst trea 1993

8 Williams Tatbook ! Obst incs 917

DEPARTMENT OF TECHNIQUE

A METHOD FOR AN END TO END GASTROJLJUNOSTOMY AFTER A PARTIAL GASTRECTOMY

BYT S MOISE MD AND S C HARVEY MD FACS New HAVEN CONVECTIONT From th Depa ment 15 g cy lil m by School I Med me

THE problem of the choice of procedure after pritial sastrectiony is one of great interpritial pastrectiony. In one of great interest in the mechanical efficiency of the end result. It is generally conceded that an end to-end anastomoss is mechanically and phy sologically more deal than any other procedure. The frequently used Polya type of anistemosis is in reality an end

The object of this communication is to outline the operative procedure and to report briefly the results of an experimental study of this type of anastomosis

OPERATIVE PROCEDURE

The operation is performed in the following

are applied to the jejunum at the site selected for the anatomosis (Fig 1). These clamps are placed side by side extending trans-ersely across two-thirds of the diameter of the intestine. An incision is made between the clamps and their handles are allowed to separate (Fig 2).

This portion of the jejunum is then united to the cut end of the stomach by a row of inter rupted silk sutures forming the posterior suture tine (Fig. 3). Small intestinal clamps are placed on the proximal and distal loops of intestine. The crushing clamps are removed and the crushed edges of the jejunum are excised.

The open ends of the stomach and the jejunum are then united in the following manner A con

be done quite readily by incising the jejunum transversely and in effect performing an end toend anastomosis



Ig t The rushing limp has been poled to the count m and an inciso has been mad across two-th d lith damet lithe test



Fig. The ru hing lamps ha bee separated show ig the opening into the jej num at the st which the be nest mosed.

in the ablomen Examination revealed tenderness an I resistance over the left lower quadrant and the uterus firmly contracted. The following day her temperature varied from 00 6 degrees F to 200 8 degrees I 1 suspicious membrane was noted on the labia on January 3 1924 a smear revealed diphtheria like bacilli A culture grew klebs Loeffler's bacilly therefore 10 000 units of diph

frequent vaginal examinations. When recog mzed the condition must be treated by fairly large doses of antitoxins. Also precautions must be instituted to prevent secondary in fections of the other mucous membranes

4 The present cases were diagnosed be cause in the first case a vaginal examination was made which was accompanied by bac teriological examination. The membrane was visible in the second case and cultures were studied

REFERENCES

lence test was done on February 2 1924 but the

CONCLUSIONS

Diphthentic vaginitis is uncommon as reported in the literature. At Cook County Hospital only one case of postpartum diph theritic vulvovaginitis was observed in an proximately 7 500 deliveries

I Boos Med Rec rd 1893 xh 152 I Brown Zentralbl. Gymack 100 N 37 4 3 Brown Zentralbl. Gymack 1895 xm 126-195 (Q) ted from Williams) DeLex, Pri ciples 100 teltics, 19 4-5 Gim., D 1 fection pu sperale par le bacille d Locill Thèse de Lyon 1911 (Quotrd from

Williams) LEE DERTE Med Klin to avi

LIETZ Mo atech I Geburtsh u Gyn 1 10 0 h Down and Meyers on Ze traible f Gyna k 9 0,

Lor Qu ted from Williams VISOT Ann de gynée et d b : 896 zi 15

, ~ DE 15

late recognition of the condition due to in

DEPARTMENT OF TECHNIQUE

A METHOD FOR AN END TO END GASTROJEJUNOSTOMY ATTIR A PARTIAL GASTRECTOMY

BY T S MOISE MD A D S C HARLFY MD FACS New HAVEN CONVECTIONT From h D partners IS gry Y t L rs y School (M d m

THE problem of the choice of procedure after

The object of this communication is to outline the operative procedure and to report briefly the results of an experimental study of this type of anastomous

OPERATIVE PROCEDURE

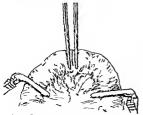
The operation is performed in the following

I olya type of anastomosis is in reality an end to-side anastomosis and has the disadvantage of severing the circular muscle fibers of the jejunum throughout the entire length of the stoma. This

of the anatorous (Fig 1). These clamps are placed side by side extending transversely across two-thirds of the diameter of the intestine. An including transverse and their handles are allowed to separate (Fig 2)

The portion of the jejunum at then united to the cut end of the stomach by a row of interropted silk sultres forming the posterior suture line (Fig. 3) Small intestinal clamps are placed on the proximal and distal loops of intestine

be done quite readily by incising the jejunum tran versely and in effect performing an end to end anastomosis

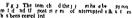


Is The cru h ged mp h e be n applied to the per m and an a is h been m d across invo-thirds of the d m ter of the intests.



Fig 2 Th crushing clamps ha e been separated how ing the opening into the party in me at the content of the second separate moved.

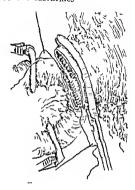




as Connell's eminimous inverting as below mattress stitch (Fig. 5). The stomach end is not puckered but the excess portion is closed in the usual manner. Firally, a continuous Lembert auture of fine silk is inserted to reinforce the anterior layer (Fig. 6).

DISCLASION

This operation has been performed successfully on a small eries of dogs. In performing this operation on the dog the placing of the satures



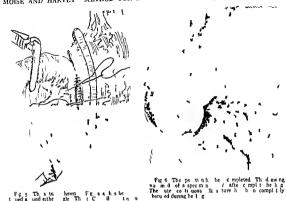
moval and active penatal is was observed upon stimulation of the stomath. On removal, the

end anastomo 1 and hould have the mechanica and physiological advanta es that are inherent in the end to-end anastomosis

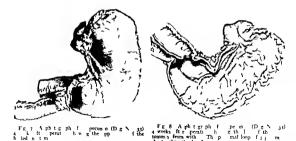
In contrast with the Polya type of gastro-

the meal passes through the opening slowly and fee ly but that the stemach is not precipitately emptied

The animals vere anaesthetized so that the specimens could be examined in situ before te



gle Th t C Fg 5 Th s tu ued a und eithe et gmtt stth



The use of the stoma is that of the cross sec tion of the jejunum which obviously is the maxi-

mum possible size of the effective lumen in any type of anastomosis even though other proce

hot than the del



it g 3. The t machand the jet um ha been pt to a mated d th posterio tow it is rupted ik sures h a bee completed.

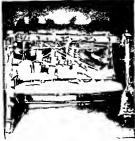
as Connell's continuous inverting as below mat tress stitch (Fig. g). The stomach end is not stimulation of the stomach. On removal the packeted but the excess portion is closed in the uniform Finally, a continuous. Lembert

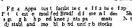
In contrast with the primostomy one avoids cutting the circular muscle fibers over a wide area and there is no opportunity for the formation of an atonic dilated pouch at the site of the stoma.

After this operation is completed the two loops

emptied

The animals were aniesthetized so that the specimens could be examined is side before re-





hygiene of the lower bowel easily possible by one nurse (5) it shall include devices for the main tenance of joint function (6) it shall provide against foot drop (7) it shall permit the ready transference of the patient from his bed to sun narlor roof gardens etc.

umerous devices have been found to be use ful Wallace (3) has devised an ingenious elevat ing frame which hits the patient's body above the level of the bed and brings about lordosis



Fg 5 Sh g the sy poston f wi dlass which lest sa dl spt nts d Bradf d fram

) than mal

I have used in the treatment

PuetBW girfell some fetfm to

by D Jh LP t Le s JP block R lph C H mill a d Alfred W Advo The pot f Dr Follock e m t n is a follows

Pralys foothlw t mutes which flaced:

At the f c rn rs f th fram ap hooks ring from

s w c att hed to tran ree

dures with a longitudinal incision into the intestine give a seemingly larger opening

it is advisable in transferring the procedure from any possible stasis in the proximal loop

the laboratory to the clinic also to perform a sideto-side anastomosis between the ascending and This operation is an experimental method and descending portions of the jejunum to prevent

USI I'UL MECHANICAL AIDS IN THE TREATMENT OF FRACTURES OF THE SPINE

By FRI DERICK CHRISTOPHER MD FACS WELL ETRA ILLE IS S /geon Evans 180s i A i to Sung St. Lat. Hospital Ch U versity f I inc. Med. 1 School Ill no Au ta in Serv

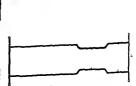
AHI care of fractures of the spine may be subdivided into two great departments. The first deals with the collection of accurate neurological \ ray and other evidence which will enable one to make the important decision of whether or not to operate when to operate and hould operative measures be decided upon what they hould be The second deals with the extended and involved campaign of the convales cent care

mectomy when the maximum disability has oc curred concurrently with the injury and when the neurological evidence shows that the cord involvement is diffuse in the section involved Such lessons are those which might be expected in conta ions or concussions of the cord. On the other hand when the neurological evidence points to hamatomy cha or pressure external to the cord bons or otherwise operative measures are of course indicated Spinal puncture should not be done in those cases requiring lordosis for optimum reduction of the vertebra unless the indication is very clear cut as for example when it becomes necessary to see if the spinal fluid is of the char

is the report of the be t neurologist available Cases with deformities as shown by \ ray and with incomplete cord le ion do not require lam

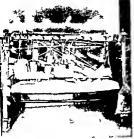


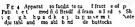
F , R tg n g m h w g c mpre n fract fthe fract mb rvert b with b kw dd pla me t Fg 2 Ant oposte i ret ng m sh w g c m pes o fatue ith first | mb



not operated upon

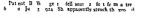
D rum i mod fed Br df ed fr m n g fr the tta hm t is ap hooks at the f corn rs of the f m





hygiene of the lower bowel easily possible by one nurse (5) it shall include devices for the main tenance of joint function (6) it shall provide against foot drop (7) it shall permit the ready transference of the patient from his bed to sun parlor roof gardens etc

Numerous devices have been found to be use ful Wallace (3) has devised an ingenious elevating frame which lifts the patient's body above the level of the bed and brings about lordosis





Fg 5 Sh in the e y positio f n ndlass which el at a dlw p tent d Bradf rd f ame

je k rmal ...

by Drs. Jh L P rt Lew J P flock Kalph C H m II nd Alf edt. Adso Th pot f Dr P flock am to us it il es Paralys s f both lo trem tes which field n



Fig 6 Frame pl ced o blocks on tret h ra 1 pat ent 1 yr g nb th n roof

word peces which a turn wire made I st to th top f th Balk frame (bg 5) The wildless was addy

Und t the b tioths were placed two strong can a chainches wd On the end f these we ba de ch a inches a d m litted t il slippedo e screw tion is not infrequently better carried out by the patient than by the attendant and in this case it was certainly true for the patient enthusias tically entered into the program and both knee and hip joints were kept in freely movable con dition

Two methods of preventing foot drop were employed one to support the feet on pillows as hown in Figure 4 and the other by traction over pulleys which may be seen at the head of the bed A trapeze was of great comfort though the

patient was not permitted to raise her shoulders The elevated position of the frame added great ly to the patient's comfort in hot weather as the

This contrivance is of great value. When an enema is given or when the skin of the urine

a broad band was laced to the Brauloiu Hall under the two buttock bands. The latter were

- d well as the gear for passive

fort As is well known the joints will become stiff and painful unless the extremities are subjected to passive motion The patient will be seen giving herself passive motion in Figure 4 This she does by manipulation of ropes which elevate bands na sed under the knee and ankle Pas ive mo-

I he chud s наррик her trips on this stretcher Many hours were pent on the roof (Fig 6) enjoying the sunshine

and lake bree e

Rectal control (which had never been complete ly lo t) and bladder control were back to normal after about the first 10 days. A month after the accident the patient was able to lift her left knee 3 inches and her night knee 1 inch off the bed had adduction and abduction control of the

REFERENCES

was occasionally lowered little the posterior had of a well padded plaster cast and while resting in this was placed in a wheel chair



A NEW FORM OF LIGATURE NEEDLE

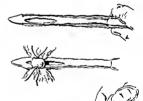
BY H S SOUTTAR FRCS LO DOY F GLAND

VER1 surgeon must have experienced the difficulty of keeping esparate the two por

but even so the ligatures may be so close together that it is a difficult matter to cut with safety be tween them

On a visit to Switzerland I was ver much struck by the way in which Kocher a blunt dissector i there universally used to overcome these difficulties. The classical instrument has three grooves and after it has been passed a ligature is carried down each of the lateral grooves by an an eurism needle and is tied. The pedicle is then divided by means of a pair of scissors guided by for the lightures

I have now been using the instrument for near
by a year and I am very much taken with its con



Fg D n how gibe ewloatur needle

o gu un cut us ugature is passed. The two ends of the ligature can be kept entirely separate as the threaded needle is passed through the omentum. An assistant cuts the ligature and ties one side while the surgeon ties the other and cuts the omentum between.

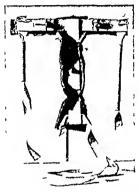
> temence In uch operations as gastrectomy and colectom; the aving of time and the added clear ness of operative technique are quite remarkable

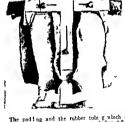
A MODIFICATION OF THE CLAVICULAR CROSS

BY BUNDICT B LANDRY MD HARDON CO NECTICAT

Т

cross piece and spinal piece being joined at right angles by five small screws. For convinence in





. . . .

The pading and the rubber tubing which is placed over the webbing the prevent charing differ in no way from those of the unadjustable clanicular cross

A SIMPLE SILVER POINT CAUTERY BY ROBERT L DICKINSON M D FACS NEW YORK

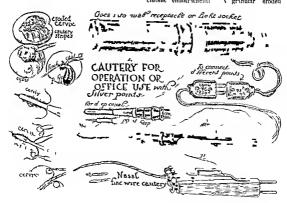
A PROMISING and convenient outfit which has been subjected to a moderate number of tests covering several months calls for general trial because of its simplicity and low cost. For operating room cautery work as for

Practically the pear can do all these. The only drawback, found was that the heating is general and is not accentuated most strongly at the very up as with platinum electric points. The all round availability and the low cost (twenty five dollars for outfit with single point twelve dollars and a half for each additional handle and its point) makes the instrument a marked step for ward. For delicacy it cannot yet compare with the platinum electrodes of the insail cautery that

a tiny heating element. Various forms of point are supplied but each is fast to its own handle. The most generally useful is the spear point shown in the illustration as the lowest of the tips and

both in all sections)

The ketche show all o the u e of the cautery in chronic endotracheliti. \ granular eroded



568

This cervix work comprises no small part of office gynecology as cervical catarrhs are the chief source of sterility and leucorrhoza raw 1 -ah m

our everlasting gonorrhozal cervical catarrhs compares with this delicate office adaptation of Hunner's clumsy Paquelin cautery operation CLIC or Fd hitis JAm MAu oof J

ment has received wide endorsement

CHRONIC ENDOCERVICITIS ITS CLINICAL IMPORTANCE AND RESULTS FROM TREATMENT WITH THE ELECTRIC CAUTERY!

BY CARL HENRY DAVIS MID FACS MILWARE WISCONSIN

1

cervical treatment of gonorrhoza strong chem

tibility of the cervical glands to chronic infection Since the pioneer work of Billings and Rosenow establishing the possible dangers from chronic foct of infection, the need for eliminating chronic infection from the cervix uteri is gradually becoming appreciated The experimental work of Laura Moench should lead to increased efforts She has demonstrated in Rosenow s laboratory at the Mayo Choic that organisms grown from the chronically infected cervical glands of patients suffering from arthritis will produce joint lesions in rabbits. Culturally these organisms are identical with the anaerobic treptococci commonly found in other foci of infection in patients suffer ing from arthritis. Her results from bacterio

R ad bei

docervicitis during pregnancy definitely increases

the risk of puerperal sepsis

et ra

* 15

cinoma and chronic endocervicitis may be impos sible in the examining room A microscopical

are rarely recognized. A dark field examination or hippsy should be made when in doubt

it must always be remembered that the types of treatment which are most effective in eliminating a chronic endocervicitis may result in serious complications if used during the acute or subacute stage of the infection

Local applications with ilver nitrate tincture iodine zinc sulphate phenol etc have undoubt ediy heen weful in certain cases when combined

treatment 1 trequently required

c made

I es not desiroy the muscular portion of the cer vix and therefore leaves a fair protection to the cavity of the uterus Technically it is more diffi-

A SARI COREGE Ho pital A follow up of 200 patients treate I from 6 months to 3 years prior to the study showed 128 or 64 per cent were cured 56 or 28 per cent were improved and to or 8 per cent were union proved These results are compared with Leon ard's report of amputation of the cervix in 100 ca es with marked leucorrhora from Kelly's clinic at the Johns Hopkins Ho pital in which 62 5

per cent were cured 30 per cent were improved and 7 5 per cent were not improved

560

The use of radium in the treatment of chronic endocervicitis was first reported by Arthur Curtis in 1920 The results in the first 46 cases were so much more satisfactors, than he had obtained with previous methods that he continued this type of treatment for the more severe and obstinate cases and in 1923 reported a total of 126 patients treated with radium Of the 104 patients avail able for careful follow up he found that 90 had recovered 7 were improved and 7 had not been benefited This report shows that better results may be obtained from radium than have thus far been secured by the older operative and medical methods of treatment. But the action of radium cannot be limited to the destruction of the terrocal plands and there is a scar tissue for mation in the mu-cular tissue which tends to contract and cause a stenosis of the cervix. This not only necessitates dilatation subsequent to the treatment but it may interfere with subsequent pregnancy and labor. At times the secretion which per 1sts after the destruction of the cervical glands with radium is very irritating and may be as announg as the leucorrhora from which the

patient previously suffered Multiple scarification of the cervit which has been u ed by another member of our society He T R fo A

made no mention of the end results

The cautery knife was used by Byrne in treat ing cancer of the cervix as early as 1892 and during the years following the cautery was used from tm to 1 m

ticatment of an locervicitis. His first report, wa made in 1906 Dickinson began the use of the nasal cauters tip in the office treatment of en docersicitis in 1917 and reported hi satisfaction with this procedure in 1922 Following this report I began a cautious test of the nasal type cauters in the office and at first with rather poor results. Later with a better transformer and in creasing experience the results improved and confidence in the method was established. The meth od causes very slight pain. Most patients are more frightened than hurt and it is important to eliminate the noise of the rotary transformer if one is required by placing it in another room

plete

One hundred and fifty five patients with en

through the diseased tissue. In many cases it is only necessary to cautenze the glands near the external os in others the disease extends to the internal os If at any time the patient complains of discomfort the contact button is immediately released and the current not applied again until she is comfortable This process is repeated until a sufficient number of cautery lines have been made. Nabothian cysts are destroyed in a simi lar manner after puncturing with the heated tip An effort is made to reach the depths of the glands

so as to destroy the chronically diseased to sue Most cases of endocervicitis may be treated in the office One thorough cauterization results in early relief from most of the symptoms and com-

During the past year only one patient out of 102 treated by my associate Dr Cron and myself has had as many as three cauterizations. As a rule it is advisable to administer an anaethetic (gas and exygen) to virgins women who are very nervous or those who require unusually deep cauterization due to the long duration of the en docervicitis. It may be difficult at times to remove tissue for examination unless the patient has an anæsthetic

After a cautery treatment the patient is in structed to wear a pad until the increa ed discharge stops which is usually in about 10 days or 2 weeks. She is also warned that the next period may be more profuse than normal. One patient cauterized extensively under anæsthesia

Douches are of questionable value and as a rule women are advised against their use. It has been our custom to paint the cervix with a 5 per cent mercurochrome solution every week or to days until healing is complete. However the observation that out of town patients who do not return for a month or 6 weeks after the treat

procedure To December 15 1924 cautery treatment has been used as an office procedure on 106 patients and at have been cautenzed under anæsthesia at the hospital With the exception of those treated within the past few weeks and still under observation healing has occurred in most in tanc es within about six weeks and the results have been very satisfactory Every patient has been improved. Two patients still have some trouble with leucorrhora although it is much reduced in amount and not constant. Among the symptoms relieved are dysmenorrhæa dyspareunia pelvic tenderness and pain backache menorrhagia metrorrhagia and sterility

docervicitis. Electric coagulation seems to be superior to the cautery in treating inoperable cancer of the cervax but we prefer the light cautery tip in destroying erosions and the chron ically threased cervical glands

operations

Women approaching or past the menopause are more hable to cervical cancer and radical treat ment may be indicated Total hysterectomy sometimes is a conservative procedure provided the patient is a good surgical risk

SUMMARY AND CONCLUSIONS

and perimetrius 2 Its presence increases the possibility of cer

vical cancer 3 It is directly or indirectly responsible for much of the sterility in women

- A Chronic endocervicitis must be considered in treating arthritis in women. Once infected the racemose plands of the cervix are prope to har bor the organisms for an indefinite period and if the bacteria are of a virulent strain the second ary results may be disastrous
- Fvery pelvic examination should include an inspection of the cervis. A diseased condition of it should be diagnosed and treated
- 6 Chronic endocervicitis due to a virulent organism is the probable cause of certain cases of nuerneral sensis and postoperative pentonitis
- 7 The types of treatment which are effective abuses I W. Choose endocery city a d it treatment for the chronic condition may cause serious complications if used during the acute or subacute stage of the infection A a to 5 per cent solution of mercurochrome may be applied locally during ald m

pregnancy and the puerperium as well as for the acute conditions in other women f and certacitis s had

usually in about 6 weeks. A few patients require subsequent cauterization. In two cases the cer-

The type of treatment must be varied ac o dung to the extent of the lesson, the age of the nd the asso-

chronically removed or n or electric cauterization

and of chaice with a fight (A in most ca es which have no other indication for surgers

RIBLIOGRAPHS

Obst & Cyner Brit Emp 1022 x 6 0 also Lancet q 2 1 70f & CLETIS d ha tenology of i uc

thers dν f the 10 Gyn c & Ob t 10 8 xxv 175 4 Id m The p th logy and treatm nt of th o c I uco

thora Sug Gyn c & Obst 923 x x 1 657 J Am M A 5 10 0 1xx 1705 inder & Co hoe I indoces in the

anas 6Di n im urred y I'r

vical leucorrhora while improved is not entirely gill

setual cautery J Am Al A

o Among the symptoms reliev menorrhera di pareunia pelvic tei pain backache menorrhagia metro sterikty (auters treatment 1 usi ... indicated during pregnancy but may be used for to Marri et s. H. B. A study of hr n. endocervent s. superficial polypoid areas which bleed Stricture of the cervix has not followed treatmen

of our cases. Two patients who had cauterization and r anasthesia have livered without difficulty 10 Our observations suggest that h n es are hmited

proved in every cale and means -

relieved

15 21 Sig Cynec & Obst o 1 xxx 1 19
pMeace C and I rowing B Bakt of gr d s weibl i n A George 897 P 35

healing within about 3 week lhı m prophylictic measure hould prevent most of the Hustres G D Mile on gan men m (en talkan i q r evere chronic conditions of the cervix which ge da Frau Zesch f Gel rich u Gynaek 1898 tend to develop after chil ibirth 21V 443

THE TREATMENT OF CHRONIC GONORRHEA IN WOMEN WITH THE ELECTRIC CAUTERY

BY H W SHUTTER M D MILW THEE WISCONSIN

T

the physician a method of curing the con-cientiou ufferer. Specialists has e recognized for many

found to run from one quarter to one half inch up the floor of the urethra. Unless active meas

lower genuto unmary system the cervix gland, of Bartholm and the para urethral gland of Skene In the adult vulvius vagunits and generalized urethritis are seen only during the acute stage of the infection

Examination of the cervix shows it to be in fected in almost all cases of chronic gonorrhead Aft first the organ i swollen and conge ted eviding a heavy mucopurul nt di charge. Ero ion

accomplished by removal or destruction with the

Long after the secretion is clear and colorles the gonococcus may still reappear following coitu inenstruction or the application of an unitant

It is variously estimated that the glands of

cylulion of pus on massage

of the pland

3.10

Frequently one find a neglected focus in the c structures to account for a continued purulent

Skene A history of burni & or jie ton at any time after the onset of infection casts suspicion on the estructures. Stripping the urchina results R Add C & Grad 1 Sec y De nd

erostons respond rapidly to treatment an anæsthesia is necessary in givin, treatment an effort is made to complete the cervical cauter zation at one time. If this is done the patient is confined to bed afterward and to date no bad results have occurred. Immediately following well as (6 date in p. p. 45).

treatment the cervical discharge is profuse Bleeding for several days after cautientzation is common but not severe and patients should be informed of this possibility. Vaginal douches are not given in the first few days following treat ment. As a rule cervical secretion is scanly by the sixth week after the last cautientzation.

The method emr loyed in eradicating the gland of Bartholm vary with the type of lesion If both glands are infected general anaisthesia is preferred to local infiltration. Injection of the duct with silver nitrate is uncertain and difficult Surgical removal is preferred if the gland 1 large and either abscessed or cystic When the gland i hard and shotty it is sometimes easy to grasp in a Jacobs forceps passed through a small incision in the skin or mucous membrane. The adherent tissues are tied in a ligature and the gland re moved Black silk should be used in closing the skin and mucous membrane. Frequently cau terization of the duct seem advisable even though the gland is excised. A fine double wire tip i u ed After operation particularly cautenzation the area remains tender for many days. Primary umon following surgical removal is less frequent than after the excu ion of non injected Bartholin gland cysts

Cocaine application or novocam inhitration of the surrounding issues is necessary before cau terration of the para urethral glands. Probes are placed in each of the duces. A fine wire top is employed and one burns down through the floor of the urethra to the probe. A mail flar terration is used to protect the anterior usefursi wall from the fleet. The administration of large doses of alkal 24 hours before and after this treatment prevents patitudi unnation. Structure is pie cutted by subsequent dislatation with the helly dilator. Electing sometimes make it impossible to destroy more than one duct at a time. Fre

usually free from gonococci as soon as healing, is complete

Three years ago I became a sociated with Dr Carl Henry Davis on the summer service at the Minaukee County Hospital and since that time have been as igned the care of these cases. After considering the various methods of treating gonorrhora it was decaded that the cautery method was particularly applicable for this clinic. The material consists largely of guls conduced to the hospital by the courts until such time

as they are tree from disease. They are therefore of value for study only during the time they are confined to the hospital. Where examination revealed active tubal complications this treatment was not employed. This report covers 35 institu tional cases in which we were able to carry treat ment to completion plus 48 cases seen in private practice. We were able to obtain three negative smears and released these 35 hospital cases after an average confinement of 43 days following the Examination of the hospital first treatment records previous to the institution of this treat ment shows that it gives a considerable decrease in the number of hospital days per patient in addition to the incomparable improvement in results obtained. When discharged from the hospital all patients were referred to the Milwaukee County Di pensary for further ob ervation

After cervical cauternation patients were all lowed to be up and about unless abdomnial pain or hamorrhage developed. Although abdomnial pain tenderness and temperature occurred in three cases no evidence of tubal extension sufficient to require surgical treatment was found. The cervix was cauterized in a number of in stances subsequent to abdomnial operation for the removal of infected tubes. Realizing the gen ral tendency to neglect gonorthea in the lower passages in these cases. Dr. Davis and I were particularly pleased at the results obtained.

The 48 cases seen in office practice were of more value for subsequent study than those at the County Hospital Nine were married at the time of treatment and nine have married since. In but one of these eighteen women has there been any complaint of recurrence in the patient or infection of the husband These patients were kept under observation for months after gonococci disappeared from smears. In the absence of complications amears from these patients eventually become not only free from gonococci but practi cally free from pus cells. If sterilization of the secretions seemed delayed careful search would usually reveal a neglected focus in one of Skene's or Bartholm's glands One woman was found to have two cervical canals both of which were

came effective Leucorrhoza was persistent in active women who spent long hours on their feet

Cervical cauterization is contra indicated in acute gonorrheea during pregnancy in the presence of untreated tubal extension and for several days before and after the menstrual period The dangers associated with its use are largely theoretical Hamorrhage sufficient to require a cervical pack occurred in one ca e Cervical stenosis did not follow in any case. Three women are known to have become pregnant and delivered themselves without difficulty. Obstructive dvs. menorrhora never resulted and congestive dysmen orrheea was relieved by the treatment Tubal extension might result if cauterization were em ployed in the early weeks of the diease. One abortion was unwittingly brought on by the treat ment. In one case where cauterization of the cervix followed subtotal hysterectomy a fæcal fi tula was produced by an overheated tip Sloughing occurred into a loop of bowel adherent

to the top of the cervix Healin followed in three weeks

ADVANTAGES

We feel that the advantages of this treatment far outweigh its possible dangers and difficulty In institutions it affords a means of rapidly sterilizing the scretions in the irre possible to the control of the contro

tissues by the local elevation of temperature Again the use of the cautery is to be recommended in conjunction with all operations for infected tubes and may either be used at the time of operation or before discharging the patient from the hospital

A NEW METHOD FOR THE REMOVAL OF STONE IN THE URFTER

A PRELIMINARY REPORT

BY A B SELIFTITZ M.D. C.M. MONTREAL CANADA

EFORE describing this new method for re moving tone in the ureter I think it would be well to review the composition and present day treatment of ureteral tones Essen tially ureteral calculi are renal calculi on their way down to the bladder They are usually small and may be solitary or multiple

COMPOSITION

The une acid calculi and urates are respon sible for what is known as renal sand the small solitary and the large dendritie form are very hard with smooth surface and reddish color

2 The exalate of lime calcula are mulberry

delad to him

ureter

cium phosphate and ammonium magnesium phos phates sometimes mixed with small amounts of calcium carbonate. They are very common al though they may be depo ited around the other

types 4 Among the rate forms are the cystine

> etc These proper but

(2) in the cast of the

throu 14200.I at one

prete

On descending from the kidney stones usually meet with three constricted areas (1) at the renal end (2) at the pelvic brim and (3) near its entrance into the bladder wall

Roentgenograms of ureteral stones are nega tive in 22 5 per cent of cases Geraghty and Hin man (3) consider the way tipped catheter of Kelly the most accurate method of locating preteral calcult and report that in 6 of 15 ca es roentgenograms were repeatedly negative (20 per cent) In another collection they show that 15 of 67 ca es were negative showing an error in 22.4 per

Fig t 4 Ordin ry et ral gifeter B dilating cath t C same as 1 gut 2 flated with glass syringe.

cent. In these negative cases the way tipped

of the stone

PRESENT DAY TREATMENT

The urine is kept abundant 2 In the presence of unc acid the urine is kept alkaline

3 Morphine is given hypodermically for pain No medicine is administered by mouth on account

of vomiting 4 Hot sitz baths and hot enemata are u ert to

reduce the tympany

s Ureteral catheterization often indices he pastage of the stone

6 Sterile olive oil has been injected into the ureter and pituitrin given hypodermically Weis (5) used sterilized gly cerine to mobilize the otherwise immobile stone. He injected to cubic centimeters of narm glycerine and 6 hours later the patient passed the stone

7 Surgical interference may be re-orted to such

openi tlew teatges

be too damage to the Lidney or in anuria Bransford

may cause a good deal of traumatism Buerger (1) has suggested a method of dilating the ureter in cases of narrowing or stricture to release in pacted calcula He uses dilating metal olive bou gres varying in size from to 6 Fr to bo 16 Fr and the d Arsonval current the smaller pole of what is applied to the ureter the larger to the abdomen

The Garceau dilating catheter has been used by some surgeons

Rubin's insufflator an apparatus used to de termine the patency of the fallopian tubes sum

٠

ulated the author to work out a plan of dilating the ureter with air. The following experiments

The artificial stones used were of different sizes. By opening the abdomen of the dog and exposing the ureters the stones could be followed by in spection as well as by palpation

In the human no case presented itself to demonstrate the efficiency of this new method but m a case in which a cystosopic examination was indicated the author was able to insert the modified catheter into the ureter without any difficulty. The ordinary dental chair or operating title with 5 tools for the feet with the patient in

from this point of view

A small piece of thin rubber was then tied to

follow it downward. At the wall of the bladder the inflations were retreated several times and

stone and after repeated inflations of the catheter and gra hall withdrawal of it the stone seeme to

without the disadvantages of surgical interfer ence metallic dilators and particularly trauma

BIBLIOGRAIMS

BUER E L Am J S rg 19 3 x 51 COSLIN ON La et 9 3 456 3 CERAGETY A d HOYMAN Surg Gynec & Obst 915 AZ 515 4 LOWER W E. B 1828 Reg onal S rg ry 9 7 P 420

Wiss Berlalu Wohnsch o Dec mber 4
The the proposed by the bland top set within he
led by Acad Somin showing man to with farmin P
he diman facture he bow done beald at gither

EDITORIALS

SURGERY, GYNECOLOGY AND OBSTETRICS

FRANKLIN II MARTIN VI D ATLEN B KANAVEL M D Managing Edito Associate Edito

WILLIAM J MAYO M D

Chief of Edito ral Staff

APRIL 1925

ADVANCED PULMONAPA TUBERCU LOSIS A BORDER LINE DISEASE

ARTIFICIAL pneumothorax the filling of the pleural cavity with gas as originally proposed by Torlanian and Murphy his proved to be a most valuable means to the internist and specialist in treating pulmonary tuberculosis in the early stage. It produce collapse with compression of the diseased lung and puts it at rest favoring thereby the formation of connective tissue which gradually envelopes the tubercles in the lun.

Coetze of Schmiden's Surgical Chine at Frankfort on the basis of extensive chinical caperance advises as a toutine measure resection of the phrenic nerve on the affected side at the time when the hung begins to expand again after the period of collapse that was maintained for a number of months or years by means of intermittent repetition of the instillation of the gas. Whether this pot that was the should stand remains an open question at this moment. But likely Coetze is right for the umbiateral artificial paralysis of the dia phragm will naturally greatly reduce the normal physiologic activity of the reexpanding lung, in fact almost put it at test. And rest

as we know has a strong tendency to check the advance of the chronic infectious local inflammation caused by the tubercle bacillus Gootze also repeatedly succeeded by means of resection of the phrenic nerve alone, in arresting obstinate harmoptism in the early most aggressive stage of consumption thereby greatly improving the general condution of

these seriously ill patients Another wise addition to the treatment of pulmonary tuberculou in its early stage promises to be the methodical use of Kuhn s lung suction mask or of a imilar contrivance yet to be invented. It undoubtedly deserves a cateful further trial on a larger scale amplies the addition to the beneficial effect of rest of Bier's hyperæmi treatment this most powerful weapon in the fight on con servative lines against a localized surgical tuberculosis. The lung suction mask does for the lung what the elastic bandage and clastic neck band do for the extremities and the head at produces a chronic hyperamia of the lung therebs also inducing the formation of connective tissue which gradually surrounds the tuberculous fo 1 Besides it represents the best remedy on physical lines against the fre quently present chronic anamia of tuber culous patients

In cases in which the visceral and costal pleure have become widely adherent the full ing in of the gas 1 technically impossible. In former years the great majority if not all of the priturns thus afflicted were doomed to die.

Suffering humanity and cience owe it to the ingenium of Ludoli Brauer professor of internal medicine formerly of the University of Marburg that help can be brought now also to these patients By suggesting to his col league at the head of the surgical clinic at the same University that he make movable the entire chest wall with the inwardly attached lung by means of resecting the upper ten ribs obtaining thereby a pulmonary collapse comparable in amount with that obtained by artificial pneumothoray he made advanced pulmonary tuberculosis a border line disease On December 11 1907 the late Paul Frie drich performed the first radical operation of this type on a patient with advanced phthisis who had proved absolutely irresponsive to any other method of treatment at the hands of Brauer With the help of Schede's operation designed for intractable chronic empyema the arm was raised and the second to the tenth rib cut out in their entire length together with their periosteum and the intercostal muscles The nationt survived Today 16 years after the operation he is completely cured

This most radical interference was modified in the course of years by Friedrich himself and by others Today the original Brauer Friedrich operation has been abandoned We have instead as standard operations the para vertebral resection of the ribs by Sauerbruch (paravertebral extrapleural thoracoplasty) the subscapular paravertebral resection of the ribs by Brauer (subscapular paravertebral extrapleural thoracoplasty) and the columnar resection of the ribs posteriorly and anterior ly by the late Wilms of Heidelberg All three modifications of the original procedure are it seems useful operations. They are best carried out under local and regional anæsthesia with careful preservation of the attachment of the muscles to the periosteum of the ribs Their ultimate effect also is thorough collapse and compression of the lung putting it out of commission with formation of connective ti sue which encapsulates the tubercles

It is to be hoped that many of the able sur geons of this country will take up this work in conjunction with one of their trained and trusted colleagues in medicine. The operation as such is technically not difficult. The used local with regional anaesthesia does away with the necessity of utimost speed in operating atthough team work during the operation is essential. It eritanily would be deplorable and a hardsdup for these patients and their relatives if they were compelled to make long journeys in order to reach a surgeon who has training in this work.

A few of the prerequisites for success in these operations on tuberculous patients are A proper selection of the cases for opera

ton

This is a difficult task which can be solved
only by most careful study of the patients and
harmonious cooperation on the part of special
ist and surgeon. Cavity formation in the upper lobe with far reaching adhesion of the
pleural leaves and beginning creatureal re
traction of the affected side, while the opposite
lung is not yet or but slightly involved represents the most favorable condition for operation.

in one or in two or in more stages? Should the eleventh rib be resected with the others at once or later etc? Resection of the first rib in conjunction with the other nine is by the general consensus of opinion imperative in every case.

Most attentive postoperative supervision of the patients on the part of the surgical staff and of the nurses particularly during the first days of aftertreatment

The postulatum rolls up the question of where best to conduct the aftertreatment Private patients will pay for special nursing the poor cannot afford to have it except when a special fund has been created for this very purpose at the various hospitals For that reason the poor would be best off in the wards However in the State of New York-perhaps also in other States of the Union-regulations of the State Board of Charities forbid the admission of patients with active tubercle bacilli in their sputum to the public wards of our hospitals. Whether this ruling can be sustained remains to be seen since reliable statistics have proved the non-existence of direct infection by tuberculosis in grown per The mitigation of such ruling would promptly increase the number of patients who could enjoy the blessings of modern surgery

3 Proper direction of the patients when discharged from the hospital

In view of the frequently present tuber culous process of a milder type in the opposite lung where are they to go? Should they be sent to a cool climate in the mountains of the North or to a dry and sunny region of the South? Certainly most undensive heliother apy appears indicated Perhaps further experience with the artificial (alpine) sun will prove this apparatus to be a sati factory substitute when circumstances do not permit migration

4 Continued observation and advice to these patients by the further actively cooperating internist and surgeon

I araniount to everything else is the requirement that the internist and surge on assume the rôle of spiritual ads ber. Neither must ever relax in his efforts to kindle anew the hope of the patient who has successfully pulled through the ordeal of the operation for onthrough the operation of so many among the consumptives. Let the medical man confide his personal worries and fears—should there be any—to the patient's relatives but never let him crush the patient's hope

A number of important questions may have to be answered later on as for instance Is pherimotony needed to increase the required rest and compression of the lung on the side operated upon? Is there an indication for apirolysis with homeo or heteroplastic filling of the resulting cavity? Should a tuberculous cavity in the lung that re ists compression be drained and o torth

At the present stage of this fascinating chapter of thoracic surgery it is inspiring to note the wave of interest and enthus ism that is momentarily sweeping over our States and Canada in connection with the subject. There can be no doubt that the medical profession of the Western Hemisphere will doits full share to solve the many questions and problems still continuously arising in our endeavors to help patients with tuberculous affection of the lung by means of surgery, after ordinary means have fulled.

What improvement the excellent work of the National Societies for the Prevention of Tu berculosis throughout the world has achieved at the very beginning of the thorny 1 ath of fighting pulmonary tuberculosis 122 the gradual lowering of the occurrence and devel opment of the disease operative surgery to day is accompla hing at the other end of the road by improving or curing between 50 to 60 to 40 per cent of the patients who hereto fore had been utterly lost. Advanced pul monary tuberculosis—a border line disease!

BILLY MEYER

CARCINOMA OF THE THEROID

VFR1 patient between the ages of 25 and 60 years who has a nodular gotter should be warmed of its danger and advised to be reheved of it by an early operation

of Marburg that help can be brought now also to the e patients. By suggesting to his colleague at the head of the surgical chaic at the same University that he make movable the entire chest wall with the inwardly attached lung by means of resecting the upper ten ribs obtaining thereby a pulmonary collapse comparable in amount with that obtained by artificial pneumotherax he made advanced pulmonary tuberculosis a border line disease On December 11 1007 the late Paul Frie drich performed the first radical operation of this type on a patient with advanced phthisis who had proved absolutely presponsive to any other method of treatment at the hands of Brauer With the help of Schede's operation designed for intractable chronic empyema the arm was raised and the second to the tenth rib cut out in their entire length together with their periosteum and the intercostal muscles The patient survived Today 16 years after the operation he is completely cured

This most radical interference was modified in the course of years by Friedrich lumsell and by others Today the original Brauer Friedrich operation has been abandoned We have instead as standard operations the para vertebral resection of the ribs by Sauerbruch (paravertebral extrapleural thoracoplasty) the subscapular paravertebral resection of the ribs by Brauer (subscapular paravertebral extrapleural thoracoplasty) and the columnar resection of the ribs posteriorly and anterior ly by the late Wilms of Heidelberg All three modifications of the original procedure are it seems useful operations. They are best carried out under local and remonal anæsthesia with careful preservation of the attachment of the muscles to the periosteum of the ribs l'heir ultimate effect also is thorough collap e and compression of the lung putting it out of commission with formation of connective ti sue which encapsulates the tubercles

It is to be hoped that many of the able sur geons of this country will take up this work in conjunction with one of their trained and trusted colleagues in medicine. The operation as such is technically not difficult. The use of local with regional annesthesia does away with the necessity of utmost speed in operating although team work during the operation is essential. It certainly would be deplorable and a hurdship for these patients and their relatives if they were compelled to make long journeys in order to reach a surgeon who has training in this work.

A few of the prerequisites for success in these operations on tuberculous patients are 2 A proper selection of the cases for opera

tion

This is a difficult task which can be solved only by most careful study of the patients and harmonious cooperation on the part of special set and surgeon. Cavity formation in the upper lobe with far reaching adhesion of the pleural leaves and beginning cicatrical retraction of the affected side while the opposite lung is not yet or but slightly involved represents the most favorable condition for opera

Strictly technical questions must be solved by the surgeons alone as for instance should the operation be done in the individual case in one or in two or in more stages? Should the eleventh rib be resected with the others at once or later etc? Resection of the first rib in conjunction with the other nine is by the general consensus of opinion imperative in every case.

2 Most attentive postoperative supervision of the patients on the part of the sur gical staff and of the nurses particularly during the first days of aftertreatment

This po tulatum rolls up the question of where best to conduct the aftertreatment Private patients will pay for special nursing thy rod live about 1 year and 5 months and for malignant papilloma about 2 years and 9 months (Wilson). If operation 18 done 13th before the malignancy has penetrated the crysule of the thyroid appre umately 70 per cent of the cases are permanently cured. Caves of malignant 5 otter should be treated

Cases of malignant gotter should be treated by removing as much as possible of the gland even to the extent of producing a hypothyroidism. The parathyroids should not be removed. The operation should be followed by extensive Aray treatment the X-ray being used in preference to radium. The hypothyroidism can be taken care of remarkably will by the feeding of thirroin or de recated this

roid gland
The pathological classification and lag
now of thyroid tumors are frequently ex
tremely difficult growly and when viewed
under the nucroscope Not uncommonly a
competent pathologist is unable to distinguish
between the benign and themalignant grow ths
uch as for instance the fetal adenoma and
the malignant adenoma.

Generally speaking there are three distinct types of malignant tumors of the thyroid first the adenocareanomata which are the most common second the malignant adenomata and last the relatively rate sarromata. The adenocareanomata are considerably but as a rule can be readily recognized under the four principal variations the papilloma medullary carcinoma scirrhous carcinoma and the carcinosarroma

The malgnant adenomata are not so easily recognized as it is almost impossible at times to distinguish between the beingn proliferating adenomata and the malignant type Generally speaking it the proliferating, adeno mata tend to penetrate the capsule invading other pittons of the glind they can be classed as malignant. I from this it can be issumed that in a person of cancer age my sizable adenoma of the thyroid which histo logically shows active proliferation is potentially malignant even though it is still continued entirely within its capsule.

C (TOLIND

This opinion may seem radical but is justified by the facts that in lesions of the thy roid the incidence of malignancy has been reported to be is high as 6.75 per cent and that with our present knowledge by the time a pre-operative diagnosis can be made in most cases, the patient's chance for cure has been lost.

Milignant tumors of the thyroid gland are not common but record prove that they do occur more frequently than is generally believed. Although the average incidence recorded in the literature is le s than r in every 300 necropsy reports show as many as linevery of bashmortem examinations.

In gotter cases the incidence of mahignancy varies con iderably. Aocher reports a per citalge of about 7 45 and Wilson of the Mryo Clinic 175. The average incidence for the country is about 3 per cent. Thele ionappears most frequently between the fiftieth and six tieth years and is found about twice as often in women 181 men.

As a rule cancer of the thyroid is preceded by a benign gotter usually of a or more years standing. Occasionally the neoplasm devel ops primarily upon the normal thyroid ti sue In 70 per cent of Wil on a cross a pre existing gotter was pre cent in 78 5 per cent of the cases of Speces and Brown. The majority of the other writers agree with these figure. On the other hand a few surgeons Bloodgood and Chambers for example think it probable that in many cases the condition is a continuous slow development of a malignant gotter rather than a malignant growth super imposed upon a benign on.

A distinct predisposition to the development of the malignancy following acute infections has been noted by everal writers and it has been observed that in many cases the malignancy began after an attack of influenza

A case may be regarded as malignant when

there is a sudden increase in the rate of growth of a long standing nodular tumor of the thy roid especially if the patient! over 35 years of age. The symptoms in the early stages vary considerably and frequently simulate those of a heming patier so that as an aid to diagnosis symptoms are not reliable. This is one reason for the contention that all enlarge ments of the thy roid eviduding the adolescent types should be removed surgically as soon a not sible.

Usually the patient fir t notices symptoms of pressure on the larynx trachen œsophagus and neighboring nerve trunks. Pain in the neck extending to the temples and behind the ears occurs frequently. Various cardon-vascular disturbances and angina like pains are likely. As the di case progresses the symptoms become aggravated. The pain be comes constant and severe. Eddema of thesir rounding structures may develop causing dyspinora and dysphagia. Intratracheal ham orthage may occur. The tumor becomes large bard and fixed. The patient becomes animus and loses weight rapidly.

Metastasis can occur anywhere in the body although it is found most frequently in the lungs. A prolonged death finally results occurring either from local invasion of neighboring organs or from the metastasis in the lungs brain and liver.

The surgeon's chief interest is in an early diagnosis for unless the patient comes when the goster is still simple or during incipient or beginning mali, mancy an operation may be merely palliative. In all custs there is a chance for permanent cure by operation the chances varying with the type of tumor and the stage at which the patient comes to the surgeon Broadly speaking sarcomata offer very little hope for cure the average period of life after operation being about 6 month. Patients operated upon for malignant adenoma of the



K-stripter program

MASTER SURGEONS OF AMERICA

ARPAD CFZA CHARLES GERSTER

RPAD GEZA CHARLES GERSTER was born December 22 1848 in Kassa Hungary non Czecho-Slovakia and died at his home in New York City March 11 10 2 He received his early education in the schools of his native town chiefly under the teaching order of white Premonstratensians He graduated in medicine from Vienna in 1872 and arrived in America March o 1871

Gerster was the first man in New York to practice surgery exclusively. In 1878 when he was thirty years of age he was appointed attending surgeon to the German Hospital Ack York and two year later to a similar position at Mount Sinas Hospital From 1882 to 1895 he held one of the two chairs of surgery at the New York I olyclinic Medical School Practitioners came to this institution from all parts of the United States for graduate instruction

Other positions of note held by Dr. Gerster were fellow New York Surgical Society 1884 member Century Association, 1800 president New York Surgical Society 1801 consulting surgeon German Hospital 1806 vice-president Ameri can Surgical Association 1908 president Charaka Club New York 1000 professor of clinical survey Columbia University New York 1016 president American Surgical Association 1011-1012 consulting surgeon Mount Sinai Hos pital 1014 and trustee New York Academy of Medicine 1016

In 1002 Dr. Gerster was asked informally if in event it should be offered he would accept one of the two chairs of surgery at the University of Budapest This was declined because as he afterward said. I had become heart and soul an American Where my name and reputation were made there I proposed to serve

to the end of my allotted time

About 1894 the Austro Hungarian Government decorated Gerster with the Order of Francis Joseph in recognition of his great charity to poor Hungirian immigrants. A few years later in 1906 following political action by Austria to Hungary which he considered unjust he returned the decoration munitaining that if he kept it his independence of thought and speech would be hampered an action most typical of him

These brief reminiscences with regard to one of the great surgeons of the world will seem hackneyed to those who knew and loved the man and who were in timately acquainted with the originality and richness of his wisdom

One other man Christian Fenger born and educated in another country came in his youth and strength to male America his home. Christian Fenger in the West and Arpad Gerster in the East wrought greatly and stand out pre eminently in the history of American surgery. Each contributed mightily to the spread of the new doctring of asepses and antisepses which had been made possible by the work of Louis Pasteur and Jo eph Lister. Fach after contributing work of a lifetime to the upbuilding of American surgery died in the country of his adoption, his name hallowed by a reverent medical profession and hy untied numbers who, threetly or indirectly had benefited by him.

Shortly after I graduated in medicine I went to New York at the suggestion of my father to take graduate work in the Po tgraduate and the Polyclime schools which were at that time in their inflancy. Cerster was one of the men with whom I came in contact. He was a forceful enthusastic teacher who opened up to me a new viewpoint in surgery. During succeeding years my brother and I made frequent visits to New York never failing to spend a share of our time with this remarkable teacher and operator at the Mount Smail Hospital.

Cerster's medical confrère said of him that he was a physician first and a surgeon second for he regarded the patient from the broad standpoint of general medicine rather than from the narrower standpoint of surgery. This gave to his opinions a peculiar value. Diagnoses carefully established led to indications for treatment in which the soundness and originality of his judgment were demon strated. Few men hive equaled him in the wisdom of his surgical indications. He was bold and fearless and did not hesitate to decline to operate if in his judgment the patient would not be greatly benefited thereby. As an operator he was original and courageous. Adequate exposure was a size gut non since he maintained that careful work could not be done except under guidance of the eye Under atypical conditions improvisations were readily devised by him. In postoperative care his broad medical knowledge and sound judgment were the admiration of colleagues and pupils. His kindness to patients and his conscientious care of them were proverhal. A strict disciplination himself nothing excited his anger more quickly than lack, of such qualifications in a subordinare.

Gerster's book The Rules of Aseptic and Antiseptic Surgery was published in 1888 for those times a veritable edition de luve printed on heavy calendered paper with many illustrations by the half tone process then almost unknown in its application to scientific books. In order to obtain these illustrations Gerster mastered the technique of photography and made his own plates and this when photography by an amateur was quite rate. The book caused a furor for at that period suppuration was considered a natural sequence of every surgical procedure. It was immen ely popular and passed through three large editions in less than two years that it did not pass through many more editions was due to Ger ter's modesty. He said. My book has done its worl.

I once heard Dr. Edmund



TRANSACTIONS OF SOCIETIES

CHICAGO GYNECOLOGICAI SOCIETY

I FOULAR MEETING HELD DECEMBER 19 1924 DP CAREY CULBERTSON I RESIDING

HIBROMA OF THE OVARY A PSEUDOMUCINOUS CYST OF THE OVARY

DE W C DANFORTH A woman age 38 had I cen complaining of pain and menorrhagia. We did

DIPTITHERITIC VAGINITIS REPORT OF TWO CASES

DR ABRAHAM F LASH reported two cases of diphtheritic vaginitis (see p 556)

DISCUSSION

DR HENRY F LEWIS I have had one case of diphth ritic vaginitis and I am rather inclined to telieve they are rather uncommon. I think that se are all agreed that they are

mata of the ovary are not particularly common I 4 4 4

curred in a patient who was 15 years of age and it happens to be the largest cyst that I have ever en countered in a girl of that age. The entire mass weighe) ooo grams

BLINDNESS FOLLOWING THE USE OF THE ACTUAL CAUTERY

DR ARTHUR H CURTIS This was a patient of i) Cibson's whom I sa with him Three years ago Dr Gibson performed a cresarean scetton The nom

CHRONIC GONORRHOEAL ENDOCERVICITIS

DR HAROLD W SHUTTER Milwaukee Wisconsin (by invitation) discussed chronic gonorrhaal endocervicitis (see D 572)

CHRONIC ENDOCERVICITIS-ITS CLINICAL IN POLITAGE AND RESULTS FROM TREATMENT WITH ELECTRIC CAUTERY

DR CARL HENRY DAVIS Milwaukee presented a paper on chronic endocervicitis (see p. 168)

DISCUSSION

DR T J WATERS Drs Shutter and Davis have discussed an important subject in a way that offers scant opportunity for criticism Dr D remuh b

U i at ner together and under an esthesia found h h nel

se eas e in eact that a chronic purulent vaginal de charge is detrimental to health and especially to strength

HILL GASS SUBseque t to that she had difficulty with \$1 100 Il th a wek she was c mpletely blind and re mained blind until her death last night In autores was performed this morning but the results of cranial examination will not be available until the to ues have been hardened for a weeks. This is the first case of ble doess following the u e of the actual cautery at St Luke's and the first I have known of or even heard of

ELAL OIL DR \ S HEANES I am always glad to hear a

til ics st all 585

11

Andreas of Chicago say that this book was the greatest contribution to surgery of the time and this is well demonstrated by its effect on the American profession. It is thoroughly taught diagnosis pathology and technique as represented in the nin school that students were able to carry out to the extent of their ability the methods di cussed and young men with this new knowledge were able to better the work of older men who e expenence proved a handicap. As I look back on that earlier period. I remember three books that helped to form my surgical mind. Idominual Surgery by Greig Smuth of Bristo Legland Operations of Surgery by W. H. A. Jacobson of Guy is Hospital London and The Rules of Isselia and Antischlis Surgery by Greig Smuth.

Gerster's interests outside of medicane were broad. Music art hierature and hie in the open his greatest diversion and recreation were all enjoyed with a heen zest. His sister I tella Gerster notable as an operatic artist greatly in pixed him in his love for muse. He wrote well on many topics and copies of etchings made by him are among the pint collection of the New York Public library. Toward the close of his hife he limited his professional work to consultations and devoted his lessure to writing and to painting in oils. In 1917 he published an auto-biography. Recollections of New York Surgeons which portray wrivily the development of surgery from the time of his student days to the present.

Gerster was a great man and unusual. The distinguished honors which came to him were incought. He loved his work, and lived for it. W. J. Mayo

deeper macressible tissues these are exceedingly difficult to relieve. My experience relative to focal infection councides with that of Dr. Heaney and Dr. Watkins. Although we quite often find bacteria even streptococci in rather generous numbers it seems that removing the lining of the cervix seldom cures the infection.

tween the cautery incusions. Healing seems to occur by a filling in from the tissue which survives. This undoubtedly results in a certain amount of scar formation but when the nasal type cautery is used there is not enough scar tissue to cause a cervical stenosis. If the cautery lines are too far spart it will

limited to 5 patients

DR IRING STEIN May I say a word in lelet se of the less destructive forms of treatment? I think the whole d scussion concerned the more severe

ence to the use of mercurochrome solution which I have used in the swork for the last z years since beginning my investigations with vulvovaginities in children. Finding it effective there I applied it to

ti up het ous with tittle of its improvement. One such patient reported on 3 successive months and had no treatment between the cautery applications. Two months after the third treatment perfect healing was four d and she is now pregnant. Her pelvic tenderness and backache are relieved.

When Dr Dickinson read his paper in 1921 I regarled his statements exactly as Dr Heaney does mine tonight. My previous experience had been

our near 1 months to encourse encor 2 physics is to

La a c usigone o mose i ne cauteries with a cambric needle

DR DAYES Your cautery may be too fine for use n the cervix

our cons deration

we p incture with the cautery and destroy the cyst with heat. This is more effective and satisfactory than the older treatment by puncture and phenol auterization.

It may be difficult to diagnose early malignancy without the microscope bout 14 months ago I used the Sturmdorf exciton on the cervix of a

ment in the chrone gono haal ndocerveits
Relative to the cervix as a focus of chronic infection I agreewith D. W. k.

that th thritis available nated

hron c

hron c

telief of pelvic tenderne s nd other annoying pel ne

symptoms Is it not we th our allempting to use
these cervical confito s before it y rea h the

sa pt t ~

the quest on f Dr (ol ispohn These patients were treated while th y till showed gonococci in the

LELV CA

autenzation

th

We have h 1th o patients at the County Hospital in whom chronic gonorrhea of the cervix was accompanied by chronic arthritis. In neither case

the essavists stated that his experience was that the radium cases had a persistent discharge after the treatment Years ago I also treated these cases with the gal vanocautery but found it to be rather too painful

for most patients I soon found in or per cent solution

speculum containing alcohol enough to neutralize

1

about 15 cases if will all the is it is a sur led with other pelvic disease making operation advisable I have removed the uterus with the cervix Not a s nele one manifested any improvement in the artheirs

h 4 -- --

Dr Davis spoke about endocervicitis as mertine malignancy I am very doubtful regarding any relationship existing between a discassed cervix and a carcinoma developed therefrom I also have had only one case in which carcinoma was found micro-

such treatment as long as there is a v ginal dis

placement of the uterus or by an abnormal condition methor will in Th

become extremely active in producing an extra

eranted that the cautery goes low enough to tou a

hyperplastic mucosa and its products secondy to A n Im out

h t hi an Lidi



s as the condition of the foints improved by cervical treatment. In the application of the cautery blade it e destruction extends to the depth of the cervical glands and does not as suggested destroy only the superficial portion of the duets. In going over the bistories of patients treate I by other methods we I und that frequently they occupied be is in the from pus cells provided the uterus is in good position and free from congestion Of the 7 cases in which retroversion complicated gonorrhom several had

One phase of the work has been interestin. Whe we first started using the cautiety several men said you will produce a stenous of the cervar and get withheld for over a years and no trouble suggesting obstruction has resulted. These patients have no added discomfort with menstruatin n and are not prevented from becoming program!

wom a cervical accretions become ab olutely free

THE SURGEON'S LIBRARY

OLD MASTERPIECES IN SURGERY

By ALFRED J BROWN MD I 1CS OMANA NEBRASKA

THE ERENCH SURGERY OF CUILIEMFAU T was to be expected that the genue and out standing superiority of Ambroise I are should gians 1 in this T all of m

of those who placed themselves under Paré's tutelage was Jacques Guillemeau. His family had been prominent for many years in the surrical seems to constantly and as a closing word after entreating the medical profession to receive the work without ton

much malediction he appends the vers Some men do reade to reap some good thereof

Others to mock and howld thereof a soffe It is more case heerin to reprehende Then anye thing therin for to amende

He does however break out once when in re

t i nucu Aferier e and a con SO D LA CO siderable fund of knowledge for his work shows lim t h ve been a keen and intelligent observer He r turn d to laris in 1581 and later became one of the surg as at the Hotel Dieu and finally in 1595 was at p inted prevost of the College of Sur geo s II re ed many honors at the hands of royalty and rved as surgeon in ordinary to Charles th N th Henry the Third and Henry the Fourth The I te of his death is go en d ff tentle ly ar authorities According t the Ind x Fun eus of th Surgeons of Paris it is M ch 13 1600 oth r g tt as late as 1613

Gu llem au as a prolific writer and tovered the fild of m h in firly well Among his pub a treatise on Disease of the L e an twork on Obstetrics

I h t tise on surgery published at I am 1 1504 h 11 ntly had no des re to precentat

effecte manye & greate operations. And to speake the playne truth all this greate companye and treasure house of Engines Molitiones and of other Chyrurgicall Instrumentes are more for curiousity and ostentatione then for anye neces itye

The surgery proper is divided into several parts The preface deal with diagnosis and prognosis in wounds and it is interesting to note it contains a chapter on the methods of rendering reports of wounds to magistrates Then follow chapters on the r moval of projectiles and foreign bodies from wou ds Sgns and symptoms of fracture of the skull The tr atment and suture of wounds The opens g of absect es Diseas's of the nose and mouth in hich he discusses Hare lip Epulis and Ranula and describes a moval of the tip of the uvu'a and pulling of teeth In his plates he illus trates take teeth. Bleed ngs leeches and boxes (cupp g) Di cases of the bones and joints and mputatio s Caut ries and Setons Bandages an l Spl nts

gi al it he says (u ing the E gle h transl 1 n) And if so be ny man objet unto me that ih my discourse is only e compilede to gether of criss he rap odyes of the antique Chyfur

1 ц for designatial as that reading is it is more in th form I a narrative and ne forgets the scientific bec use of the prep aderance of th personality of the m n Cuil meau had absorb 1 lares science n'i being a compil r nd cla fir put the I form I on in as imil bl f rm an l giv us Par a surgeal methods with the per I to left out



used by countless numbers of students and phy sicians Each edition has brought to the reader the newer developments in anatomical research and today it stands as much an authority as it did 65 years ago This edition incorporates but few changes Sight additions have been made on the subjects musculature of the heart and ductless glands

HAPPy trend in serious surgical study is to A give in one volume all the facts and fiction on

exhaustive treat se on the inflammations which are d vided into acute (necrotic suf purative and y nerenous) and the chronic with or without scierus meluding tuberculosis and syphilis The chapters on the acute suppurative form and pan er at e stone are especially valuable. The surgeon will appreciate the thoroughness of the d cussion and the descriptions of the three surgical methods of approaching the pancreas-through the abdomen through the back and through the pleura. The author's animal experiments form an addendum No mention is made of the action of insulin and its bearing on accessory tre tment f flowing changes FILLOGG SPEEN

UILLAUMES monograph n colotyphhtis and the syndrome in the right iliac fossa is a

there was a co existing lesion or a functional dis turbance of an organ near the appendix (2) there appeared after the appendectomy perstoneal trou bles analogous to those which caused the disturb ance called chronic appendities and (3) there were perchie troubles of such a nature as to cause a return of the symptoms at first labeled appen dicitis

Consequently he holds it wrong for physicians to speak of a syndrome as attributable to chroni annendicitis which is characteri ed by spontaneous or provoked pain in the right iliac fossa digestive disorders and by changes in the patient's general health In fact he agrees with Brunn that the nature of anochdiceal lesions is such that they cannot correctly be characterized clinically as chronic an pendicitis KILLOGG S EED

DELIBERATELY to cat saide historical development discussion of old theories and surgical procedures long since abandoned together with of solete bibliographic references as excess baggage requires courage in the exposition of any surg cal subject Potel's treatise on orthopedics has set out so to do He admits that in tead of offering the practitioners to different methods of car ng for ar orthopedic condition he presents only one which he considers suitable

The long held idea that amniotic bands and

G A ou Ediedt W en H Lew B ded La P restatiti. By Do Domenuco Calua grade Reparti.

LE C OTTPELITE LE STED ON LA FOR BLAQ D OF (Appred et l'executes, Lob yphilites) B Le Doutre & C Gull on Para Libraire Octa Doug are

The illustrations of congenital deformities num bering 400 are very good. But the value to the practit oner of some of these given in the discussion of treatment of acquired deformities is doubtful

for example the Murphy method of arthroplasty The worth of this monograph has chiefly in the classification and illustrat on of congenital deform

PRAITE PRAITICE VETROPE E. By D. G. Poi I Para Octa Dela, 0 4.

REVIEWS OF NEW BOOKS IN SURGERY

I T has been a del ghtful experience to review the recent volumes of Pauchet! There is httle question but a hat carefulls selected and prepared illustrations c ravey more definite and unmistakable information than simple text. Consequently a textbook has not the clarity characterist of a

command in the rountgen rays a means whereby individual studies can be made of bone development. There now r man is the one variable and doubtful factor is the correct interpretation of the roentgenological pactures. To fulfall this want. Cohn prisents the volume which is before the reviewer. This volume is an allie consisting of

femoral hernia vesico vaginal fistula cancer of the rectum adenona of the breast gastric and

these configence/tams are taken range from early infancy to maturity. As an example in description that control is a state of the term and a the following ages 7 weeks 5 months 13 months 2 years 3 years 4 years months 2 months 2 years 3 years 4 years and 0 years and 0 months 10 years and 0 months 10 years and 10 months 11 years and 6 months 10 years 14 years and 6 months 14 years and 2 months 17 years and 6 months 16 years 14 years and 6 months 16 years and 7 months 17 years and 6 months 16 years and 7 months 18 years and 7 months 18 years and 7 months and 20 years 18 years and 10 months 18 years and 2 months 18 years and 5 months 18 years and 5 months 18 years and 7 months and 20 years 18 years 20 years

IN a little volume written for and dedicated to the me lical student. White again brings to our t

h v rage t thook

of treatment

This little work* contains many suggestions which
the vou g surgeon as well as the medical student
m y do well to beed. Much information is incor

VOLUME IV of the Annals of Reentgenology adepting normal bones and joints has only recently been released. This volume is Bundling and Stabable contributin for the reentgenologist as well as for the surgeon and practitioner. The study of

passes a larger and more varied held of G 14

J A Wolffer

A TY Boo Strott Hard Tart By Rend Wa
MS (N Z 1 F R C 5 (bug 1 New York The Manning Co Seary

b P CT S ILL TR By No of P other & ha sand if T noth I by F R H Athano AID C.M (bd Li) Lo d Erneth Limited
B No J FT S | 11 By I d Cohn MD FACS N & F I B Hothe I

OLY a few years have elapsed since the last edi tion of Gray a Anatomy was given to the profes

today it stands as much an authority as it did 65

newer developments in anatomical research and cus ed in this Or especial inter state the reports

A HAPPY trend in serious surgical study is to give in one volume all the facts and fiction on a subject. This volume by Calzavara on the inflam

ance called chronic appendicitis and (3) there were psychic troubles of such a nature as to cause a return of the symptoms at first labeled appen

Consequently he holds it wrong for physicians to speak of a syndrome as attributable to chronic

the t and of Paulishings too oop to hos oop of which are said to be present in the adult pracreas Th physiology of the organ its accessories and anomal es and an investigation into the internal secretion problem and its relation to the endocrine syst m in general is then covered. The etiology and

nature of apperdiceal lesions is such that they cannot correctly be characterized charcally as chronic an pendicitis AFILOGG SPRED

gangrenou I and the chrone with or ithout icterus including tuberculosis and syphilis The chapters on th acute suppurative form and pan creatic stone are espe tally valuable. The surgeon

DELIBERATELY to cat aside historical development discus ion of old theories and surg cal procedures long sinc abandored together with obsolete bibliographic references as excess baggage requires courage in the exposition of any surgical subject Potel's treatise on orthoped cs has set out so to do He admits that instead of offering the practitioners so different methods of

,

author's animal experiments form an addendum No mention is made of the action of insulin and its bear ng on accessory treatment following changes a the gland KELLOGG SF ED

"UILI AUME & morograph on colotyph stas Guilli AUME morograpm on the right that fossa is a

> g tu The illustrations of congerital deformities num bering 400 are very good. But the value to the

G A. Ed ed by W rew II Lew B S M D d d L P curattra By Dot Dornes Calas ra B log LE C LOTYPHU TERS NO ME LA FOR ILLAGER D
(Appe dict en Fer of es Col yphis es) By Le Docteur & C. Guil
me Faria Libra se Octa Doin 4.

Teamt Paatry to'O ra f t. By D G P tel P

REVIEWS OF NEW BOOKS IN SURGERY

T

information than simple text. Consequently a

command in the roentgen rays a means wher by individual studies can be made of bone development. There now remains the one variable and doubtful f ctor 1c the correct interpretation of the roentgenological pattures. To fulfill this want Cobin presents the volume which is before the resiever. This volume is an atlas consisting of

į

scheme as for example in volume the illustrates femoral hernia vesico vaginal fistulæ cancer of the rectum adenoma of the breast gastre and

these roentgenograms are taken range from early infancy to maturity. As an example in describing the normal shoulder the roentgenological studies wer made at the following ages 7 weeks c months 13 months 2 years 3 years 4 years and 7 months 7 years and 8 months 8 years and 10 months o years and to months to years and to mouths se years and 6 months ra years ra years and 6 months 14 years and 8 months 15 years and 4 months 16 years and 10 months 17 v sts and 6 month 18 years and 7 months and 20 ye rs A armilar range is covered in the other studies. The reprod ctions of the roentgenograms a c excellent. This work should be heartily welcomed by the profresion I A. Borria.

1 1 1 1 1

In a bitle volume written for and dedicated to the med cal student. White again bings to our ittention the necessity of a thorough knowledge of the minor details of surgical procedure often depends upon the car full management of the many minor details

rather an unovation. C Cordon Maison m a general introduction most terrely expresses the reviewers se (unents). The reputation of victor I auchel as a bold and brilliant surgeon stands high in Tans. Practical Surgery Illiant surgeons and high into English by Dr. F. R. B. Attinuon cannot fall to grain to the property of the property of the toronto the property of the property of the bold objective and profit.

of treatment
This little works contains many suggestions which
the y ung surgeon as well as the medical student

VOLUME IV of the Annals of Roenigenal gy to disting normal bones and joints has only recently been released. This volum is a most to be directly been released.

pr pare such an enema. We infer that the n ise in charge knows. We fail to real ze that many phy

AT BOD & SUR CA HAND IF B J R | Wb MS (N Z) FRCS (A E) h Nort The Maccoulles Company

International Abstract of Surgery

Supplementary to

Surgery, Gynecology and Obstetrics

EDITORS

FRANKLIN H MARTIN Chicago
SIR BERKELEY MOYNIHAN K.C.M.G. C.B., Leeds
PAUL LECENE Paris

SUMNER L. KOCH Abstract Editor

DEPARTMENT EDITORS

DEAN D LEWIS Gen ral Surgery
CHARLES B REED Gynecology and Obst tric
LOUIS E SCHMIDT Gen to-Urn by Surgery
PHILIP LEWIN O thopped Surgery

ADOLPH HAPTUNG Roentgenology JAMES P HIZCERALD S recry of the Eye FRANK J NOVAK J Su gery of the Ex No e nd Th oat

CARL A HEDBLOM Chest Surgery

CONTENTS

I Index of Abstracts of Current Literature

11.	Authors	1X
III.	Editor's Comment	×
IV	Abstracts of Current Literature	275 339
w	Bibliography of Current Literature	340 360

٠

ities in acquired conditions it will fall short of the ideas and scope of work un lertaken by the American orthopodist herizon Serra

a er h

or D in

> ur written by two of his former assistants Rubritius and Paschkis

The recent Figh h and American urological hierature e pec aliy on diagno tic instruments and operative technique has not been consulted on fe eiv a tt might have been. In the chapter on

e. I tol pical operation is taken up in a mor detailed manner than is goo ible in the average text book and is supplemented by many colored illutrations.

Altogether the book is the be tool it kind which has yet appeared and should be in the I brary of every prologist

D N Lise DRATH.

Tr.

дрк

on ureteral technique and kneise o urological operations in the female to use of most as Brine F belk as talk of talk of the first processor of the first proces

BOOKS RECEIVED

Books ren elae ha wie is Inth let ein tant hach wieden nam the rant is a fann it inforth ry fishesen! Selection willbein de fir rew in the intrist! In teal is and a spapern i

END FOR MERCTIER BE Edically Prof D R Croth 1
LR Gener To me good
Cheeke The Reservoir and Cheeke Ake Reservoir and Cheeke Ake Reservoir
Use a Son B ha MD Philad light M B Son B
Jes Company 1994
The Lun & 60 D T Agaste Sirkham R A M

Is Company 1923
The last his of a sense barkers R & U.
The last his of a sense barkers R & U.
The last his of the last his
FSV Load n If he 18 L his
Like known Ved call and Suppeal By P Brock
Plad M ID Ibiladelphi F V Da I C mpany Pullibra 9.4

AATOM TOPOCK 1 Pro ram explicat o con un

dt si ny 94 maioche des Vines En Hadduch Brotoche uvol Pinaioche des Vines di Presa nhalland u d'Edurt has o t Evisse Hilhan dL dwg Se tr Herl Urban & Shwatz n bent 94

CONTENTS-APRIL, 1925

ABSTRACTS OF CURRENT LITERATURE

SURGERY OF THE HEAD AND NECK. FOR SURGERY OF THE HEAD AND NECK. Special Refe nec to the Churcal Use of Guilt hand \$\$1 L1	275 275 76 276 277 277 277 77	Tivete M. B. T. dR. Its in Some Co. dit in SA sociated with P. Sably Caused by Go to Course A. J. End R. uits of Go ter Operat in Borne C. N. A Repo t. the Re uits of Operat in Borne C. N. A Repo t. the Re uits of Operat in Go the T. A. Repo t. The Re uits of Operat in Go the T. A. Sargi. I After Tr. atment in Thy Tro 4D. Se. Boothing W. M. The Use of I Johnson V. Changes in Skeletal G. owth in Parathyr d. Coursel De Month of The Course V. Changes in Skeletal G. owth in Parathyr d. Coursel De Month of Tubercul is of the Larynx Its Symbosium to the Physician. SURGERY OF THE NERVOUS SYSTEM Brain and its Coverings. Cranial Nerves.	
I tra-Oc 1 T ns o	278	Fasser J S Cerebell r Abscess	28
Ear		KING E T T	
Pruse A Radogr phy I the T mporal B ne in Earl D e CARDINER W. T. Ottu M das in M. 1 Ross E L. Otts Media in S. ritTe er Lavrow T. B. Scort S. Low A. a.d Oth rs. Discuss in n.O.l. gcala d.Rhi. 1 pcal Problims in Scrift F. and Wessles	278 279 279 279	n	28
Nose and Sinuses			
M INTAK I A Comp rate St dy f I ev a d			28
Org ne Transpi is in Rhin pi ty E donasal Operate Techn q oof Some N salD J mait es with Report of C sea. Nation N Nissal Ne ro. DAVIS E D D Some P into in the Pathology D agoo is and Tre tment of D seases of the diability Antrum.	279 80	Spin 1 Cord and its Coverings Fixonory K. A Method for the E-rly Localization (Extramed H by Spin 2 Cord Tum is	
Mouth		it if shin coord rath is	28
FRANKEN S W. A. The Lenox II II Hosp tal Plan for th. D. ntal Care. f H. sp tal Pats nts SIMMO S C V. C. rcm. ma of the Buccal M. cous M. mbra.	280	Perigher 1 Nerves DELACERIÈRE II A Contribut n to the Study of the S rge 1 Repair of Peripheral N rves	5
Neck		Sympathet c Nerves LANGLEY J N The Se sory Nerv F bers of the	
HURCK II Th Parallelism B t ven the Claucal d Hist I gical Pi tures f Go t	3	Heart and A ta in Relat in to S rg cal Opera- tions for the Rel of Angina Pectoris	25



INTERNATIONAL ABSTRACT OF SURGERY

	the second secon	
B BES A The Et l gy of Hyperpla a I the	Puerpersum and Its Complications	
OCAK I O Fibroid Tumors Th is De lopment	HESSENAER ER F Th Infl enc of My m taupon the Thi d Stag f Lab r	319
and How They Prod ce Symptoms Th FI fect on Pr gnancy and Labo Treatm t 3 7	SFIPP G.W. Thrombo is 1 th Pu rpe um on the Bas of Clin al Materal of the Last Thete	
Puccioni I Uteropanetal Fist læ 3 7	1 ear	38
KAHN W Pe it eal Fi sure of the Ut rus 3 8	Miscellancous	
STEINHARDT B A Clin cal and St tist cal Report o S room of th Ut ru 3 9		
KUN K Irradiati no Operat n for Carcinoma	Obst t c	30
of th Ut rus 309 Bunn E V rul nce Tests a d Op rat e M rtal ty 309		318
External Genitalia	BARRER I I Thea Constitut 1Ped poton	
PEMBERTON F A Acquir d Atres of th 1 g a a d Cerv 300	T ward the Rep oduct on f a P ep nd rating Sumber of Desc nd nts of the S me Se?	319
Miscellaneous	GENITO URINARY SURGERY	
Gelleury G Mik Inject n in Gynec I gy an i	Adrenal Kidney and Ureter	
Obstetrics 3 FALTA B The Application is the Rat is domestate nof the Fryth ocyte in Obstet is and	OLERACHT J & d RANDLT M. Changes in the Administration of Albumun Pare t at Administration of Albumun	320
Gynecology 3	MARTIN C L R GERS F T d FISHER N F	
OBSTETRICS	The Lff tof th Roe tgen Rays o the Ad en 1 Gl nd	3 0
Pregnancy and Ita Complications	Nichols B H Som An mal a f the Kein y	32t
POLAK JO Fb dTm s Th De limint and ll They I rodu e Sympt m To 11	latigur \ P \ot n the Cln \ pe ta of	3 2
and H They I rodu e Sympt m To 11 ict Pr gn n y nd Labor T e tmrnt 3	. HESS E Surg I H ra hae K iney Report f	
F & K The D gnos of Fregn y by B 1 g 1 M thod	RALT TO THE TO T	322
Humber \ Old Pmpre 3		
In SELLIDES S The A tion of the Norm of not December 1 D ng P ga ney nd Labo 3	1	3
I FEET II C behydest M t fol m Dunge	Witte H P W Th Cin IF tur nd Diag	•
Pg ney 2 I th Vie of I slin t the	I Ifyd phtos 3 H R E Sta T Settsatian Sta B Forms A C	32
Mt 10 J Th Effect fTtlRm I fth Utru dAd on Pg ss e Tuberculo	3 HRE Stat Spiesbury StaB Forme AC rd W raff VDsu n nlipyte Decotth Kadeys	32
BUNER K. Th Compleatin f Pres nyand	3 Weight F P I poid Speckling f the Renal Cortex—the So-C lied My In Lidney	
Labo by Tum 1 the Gent 1 3		323
File ST W T perit neal Car an Se ton	HEL J H and BEDGOOD C Y The Fff ct f S Int	
P DDOCK R Rec t Observ t of Certain	Kidneys	324
P th l gral Co dt s I the Amn R CHARD N Hydr m A Re w i the Cas	to to a displace tos	3 4
Se in the lan klot Clucin th P rod f m	Gen tal Organs 6 Ret was H. C. homes m. tal Study a rate I	
Pit F Tin bot swith n Ft at f St Week Bit n th Fytrus f th Tw F	Dira	325
POLAK I O & d W L F 5 A A I ether St to	16 Mescellaneous	
I the Ogn I Ute me Bl dag a T !]	Illramsor II f d Millier F in F per me tal Study f Therape t P oc d e in i y locy t t	, .
Labor and Its Compl cations	STIRLING W C 1 t d 1 \ 28the a in Cen to-	
STIGLBALER R Brow Pese tt in Lake d	Luster O S and Rockes H I O Hund d	3 0
At rio C R pt of the Uterus Dung th	nd Se t Co secut M jo Urol gical Operat s Perf med dr Reg nal Anæs	

280

250

289

233

200

200

332

336

313

02

203

202

203

24

94

205

SURGERY OF THE CHEST

Chest Well and Breast

ıv

I FE B J and TANNENBAUM N 1 I flammatory Caren m and the Breast \ Repo t f Twenty F ght C sea from the R east Cl | col the Mem n l Hoq 1 1 N w 1 k

THE Beat

Moots v (Lat R ure Mrgk I al Ope

Traches Lungs and Pleurs

MUNAY M. and KARP D. The F rm R. II st n
f th Trachea II fore a 1 Mt. Operatu n I r
C tter

Bt NEW II A St by I too Cases of I mpyem
Treated by R Closed M thod
I OURERSON II T Fo lothel om. of th Pleura

LOCKHARY MUNICHERY I Fo toperate v Pulm nary
I milolism
MERIO G6 12 J F and MILDENREICH \] A
\ W I o t fr th Loc tg legical Daag
nosis of bmall Heri I ffusion 5

Heart and Pencardium

CUTLER E.C. LEVENT S.A. I BICK C.S. The burg cal Tre-tment of M trai Ste 28 8 Expe a m tal and Clin tal St. et 28

PRESSURIDES S The Action f the Normal n1
Distance He t 1) ing P cont co and later

Caophagus and Med astinum

Mositing II P Asymmetry fith M the fith
(Fig. ph. gu d'Retroph 17mg | 1 Di et ul

Di Crooper 1 Diesti not the Cooph gu :

Cau of Ham i m i
Creer D C Th Tre im ni i C nmom I ii
(Esophagus i y Radiai

If the Character of the

Miscellaneous

I YTER J C The Pathways of the M daste m the Lungs i the Pie re

SURGERY OF THE ABDOMEN

Abdomin | Wall and Peritoneum

BABCOCK W W Methods of Reco truct ng the Def it e Anterior Abd m nat Walt O BRIEN D P Omentops y

Gestro-Intestinal Tract

Op t

IVY A C MCCARTHY J I'd ORNDOFF B H
The Effect on G st c Secreti (Lup une f
Abdomnal a d Ti ra) \(\cdot \) st th low \(\text{tg} \)
Rays

Czif A Tb \(R \)
D od \(\text{Ul} \) r C t ll dby th I'd gsgt

You Brewn M Inv gunation II u Aft Gastro Entero t my Schampt II Resect sof the Stomach and Gastro

24

200

97

05

3

3 3

3 3

3 6

Ch m try

Braceness E P trid I feet I th St mach and

the Upper Part of the Small Intests

RORIER C. A. An Impreed Tech q fr Intest to al Anast mos

Char cal 1 rsus Expe m tal Anastomos
the H II w Viscera

RANKY I'W Lymphosarcom f the Small In testin s

MacCart W C L cised Duoden 1Ul rs
SEMMOR C A Case IP pute Ul r (the J jumum
in Which See d Lap rotomy Was P i rmed
Twent Thr 'rs Viter Gastro-E i rost my

Lette W. Th. Clin cal A peet m d P th 1 gy !

Meck I. Di etti ulum and Oth r Obstru twe
Matto mati ns of the Incompl fely Obl t rated
Omph lomesmerne Duct

Switc. A. B. Devel pmental Errors in Fixati. of

the Ascending Cof a Reporting 190 C Topemer Htt cinian L. J. Lockhart Musikery B. Ca. W. M. and Others. D scus ion. [Irol pse f th. Rect. m.

A DERSON II C DURES C E WARDS S a d
Others D scu s non the Treatment of Ham
reh ds by Inj. ct n

Liver Gall Bl dder Pancreas and Spleen

Daury D R Studes the Total Ble VII C 1t Influ ing th Calcium C t tof th Ble

Ro f t z M C Hyd t d C) is f th Lv Opening t the Bilary Pussag s

C EN . K D d COUNSELLE \ S Ih
Roentge 1 g cal Dt gn us of Ch lee; to Dis-

ease thath Aid of the Sod um Salt f T tra brompi a lphth l

Roro LM S gual Rotrut nith

Birvin s ges

John v H E Th S gn f f th Spl in
the Light of Embry i g cal E l t ry d

Exp numental D t

GYNECOLOGY

Uterus

STORCERL W Th Operat Tr tm t f Dis
pl m t of th Ut m d V g ma 3 5

www.R. Le her d It T tme t N w

WAR Le hee dit T tene t

Kadum		Entro	
(aERNE D C Th Treatm at of C remom of th Œsophagus by Radiat on	202	D scu on on Otological and Rhin logical I rob lems in Scarlet Fever and Measl s	279
	292	MACLAY N Nasal Neuroses	280
Hill. W. Radium in Cane r of the Esophagus Th. Results of Fifte n Y ars. Experien e	293	BOOTHBY W. M. Iodine in E. phthalmic Goiter	283
KUHN R I radiation or Operat on for Carcin ma	-74	SALOMON R L ucorrheea and Its Treatment	306
of the Uterus LEVIN I and LEVINE M The Act on of Rad um	309	BOEST M The Product n of Carcinoma by Local Irnt t on Combined with Chol sterin Te ding	339
n Pl nt d Anumal Tiss s	337		
BECKEA W The T eatment f Carcinoma with		General Bacterial Mycotic and Protozoan Infect	2002
Sun gat	338	SMITH C ad LEIGHTON W E The Tre tment of Tetanus with M gaes um Sulphate	339

70

MISCELLANEOUS

Cimical Entities-General Physiological Conditions GARDINER W T Outs Media in Measles 279 Ros E L Ot tis M fain Sca let Fever

Surgical Pathology and Diagnosis

HUECK H The P rallelism B tween the Chinical and Histolog cal Pictures of Gost r 281

Lamor T B Scort S Love E and Others

vi

SURGERY OF THE BONES JOINTS MUSCLES

MARTILOFF K H The Us of Eseria and Strych nin in P st perati e Abd min i Distenti n A Clinic i St dy t D t rmine th Prophyla ti

SURGERY OF THE BONES JOINTS MUSCL	ES	Infl nc f These Drugs in the Pre e tion of Abdominal D stent n Following Ope ation on	
Conditions of the Bones, Joints Muscles Tendons Etc		th P1 ic Viscera, Togethe with Som Other Considerations	334
(nixon 1 Cha ges in Sk l t f G wth 1 Para thyro dectomi ed Dogs	83	Antiseptic Surgery, Treatme t of Wounds an	đ
HE DERSON M 5 nd Strov II L Brodes Abscess	325	LISENERE C Exper ce with Ri and to Dite	335
MEYERDL G H W Roentg nographic Types of Sare ms of the Long Hones	38	Anesthesia	
DARLING B C. Th Sacro-Hiac Joint Its Diag	320	STREET W C I tradural Anasthesia in Genito- Urmary S rgery	
	329	LOWSLEY O S a d ROGERS H E. On Hundred and Se teen Consecute e M jor Urol g cal	36
Surgery of the Bones, Joints Muscles Tendons I	Etc	Operations Perl med und r Regio Anzs-	3 6
Magnes C Th Fate of Fat I terposed in Arthroplasty	330	B cr ~~	3 0
SMITH S A The Operati e Tre tment of Knee	330		335
	33		
Fractures and Dislocations		PHYSICOCHEMICAL METHODS IN SURGI	ERY
Wescu I S Th Red of n and C atrol of Un		Roentgenology	
m nageable Fract res by M ans I a M tal	331	Press A Rad graphy of the T mporal Ro e in Ear D sease	278
SURGERY OF BLOOD AND LYMPH SYSTEM	15		
man and a second			
Bl od Vessels			284
Serer C W Thrombosis i the P spers m on the Basis of Chinical Material of the Last Thirteen		G geng D C The Treatment of Carcin ma I the Esophagus by Radiation	285 9
Steep C W. Thrombosis i the P open m on the Basis of Clinical Material of the Last Thirteen Years	318	the Chophagus by Radiation I v A C McCartuy J E and Orndors B H The Effect o Gastric Secrets n of Exposure of	٠
Serry C W. Thrombosis! the P rpert m on the Blass of Chinal Material of the Last Thirteen Sears REIGHTER T L An E perum nial St dy of the Mast mote Circul iton in the D g	318 332	the Œsophagus by Radiation	٠
Serey C W. Thrombosts! the P spen m on th. Basis of Chinasi Material of the Last Thirteen Years. Rescriber T L. An E perim nial St dy of the Mass mote Circul ition in the D g. LOCKLART MUNICAL P. To totoperative Pulm. ry.		the Esophagus by Radiation I v A C McCastury J E and Onnborr B H The Effect o Gastine Secreti in of Exposure of Abdominal ind The rice careas to the Roentgen Raya Crea A The V Ray Appearance I G tine a d	,
SEIPE C. H. Thrombouril the P. mperi m on the Bassin of Chinal Maternal of the Last Therteen Vests RECHIEST F. L. An E. perim nial St dy of the Anast mote Circul tion in the D. g. LOCKART WITHMAKEN F. I Ostoperative Palm ry Embolism	332	the Geophagus by Radiation I'A C McCartury I E and Onspoor B H The Effect o Gustine Secret in of Exposure of Abdomnal and Thrice Artists th Roesigen Rays CIPMA The Y Ray Appearance I G time a d D oftenal Uice a C timiled by th Findings t Operation	,
SEPP C. N. Thrombosel the Propert m on the Bass of Chinal Material of the Last Therten Vasts RECHEEF T. L. An Experimental St dy of the Anast mote Circul tion in the D. g. Lock art Winnach F. I Ostoperative Pulm ry Embolsm Blood Transfusion OBRIN R. A. HARTER P. MACKIF T. J. and	332	the Chephagus by Radatum 17 A C McCarthy J E and Orndorr B H The Effect o Gastne Secreti a of Exposure of Abdomnal and The rice Areas to the Roesigen Rays Cepha A The Y Ray Appearance I G tric a d D odenal Ulce s C trilled by the Findings	9 95 95
SEPP C. N. Thrombosel the P. prett m onth Basin of Chinal Material of the Last Therters RECHEEF T. L. An Experimental St. dy of the Anast mote Circul tion in the D. g. LOCKLARY MUNICAL T. I Ostoperatuse Pulm ry Embolum Blood Transfusion OBRIEN R. A. HARTERY P. Macriz T. J. and Others D. Seuds nool Immunity MANNY H. HI. Ch. ges is the Blood Pcture	332	the Casphagus by Radiation I'A C. McCartry I E and Onnour B H The Effect o Gastra Secret in of Exposure of Abdomnal and Truce Cartras to th Recenting Rays CETRA A The Y Ray Appearance I G time a D ofenal User s C utilide by the Indiags (Operation Constitute V R D and Counseller V S Th Rocatter begged D rock of the Soid in Sail I T to becomple I published in Sail T T to becomple I published in Sail T T to becomple I published Rocatter I and Pasters V I. Rocatter I and Testers I and Tester	9
SEIPE C. H. Thrombourd the Propert in on the Bastia Chinal Material of the Last Thirteen Vales RECHEEF T. L. An Experimental St. dy of the Mast mote Circul tion in the D. g. LOCKA ART WORMARY F. Tostoperatus Palm ry Embolsism Blood Transfusion OBRITH R. A. HARTIEF F. MACRIET T. J. and Others. Discuss non-Immunity MATON'H. HI. Chas get in the Blood Picture. F. Howing Roentgen Irradiation	33° 33	the Capphagus by Radaton I'A C. McCartry J E. and Onstorr B. H. The Effect of Galactic Secret in of Exposure of Rady Ray Say CIFFA A. The Y Ray Appearance I G. Inc. a d D orient User S. C United by th. Findings Cappa	9 95 95
Steps C. W. Thromboses! the P. open in on the Basis of Chinas Material of the Last Thereter Vans RECHIERY F. L. An E. perim stal St. dy of the Mast mote Greet into in the D. g. Lock art McMarkey F. Iostoperative Palm ry Embolism Blood Tenatiusion O. Beirus R. A. Harrier P. Macrie T. J. and Others B. Steum no all manually Manuary H. H. Cha. ges i the Blood P. cture F. Howing Reenigen Irradiation Lymph Vessels and Glands	33° 33	the Gapphagus by Radation I'va C. McCartry J E. and Onshorr B. H. The Effect o Gastra Secret in of Exposure of Abdomnal and Time ce Areas to in Resigner Creps. The Y Ray Appearance I G. Inc. a G. Portan Little T C. united by the Findings (Operation CREWAY R D. and Coursettler V S. Th. Rocaten looped D. geosis of Ch. letyptic Dis. a. th. the MG file Sod in Skill T IT and Marrier C. L. Rocken J. T. and Pisters N. F. Gladient the Rocking Rays on the Adrenal Gladient W. Rock to graphic Types of Marrier L. R. W. Rock to graphy Types of	9 95 95 3 3
SEEP C. N. Thrombosel the P. open in on the Basis of Chinal Material of the Last Theretee Venn RECHEEF F. L. An E. perins mid St. dy of the Mast mote Greek into in the D. g. Lend art Wilwards F. I observative Pulm ry Embolism Blood Transfusion OBSIEN R. A. HARTIEY P. MACRIE T. J. and Others D. Seusa. no ol Immunity Marvett. H. T. Cha. g. m. d. Blood F. cture F. Howing Receives irradiation Lymph Venels and Glands AMPTIC. H. N. and Kurmett. H. Ja. Th. F. mathon of The ris R. C. th. Isla and Lig.	332 33 33	the Capphagus by Radation I'A C. McCartry J E. and Onnour B. H. The Effect o Gastins Secret in of Exposure of Abdomnal and Time characts to the Resistra Response of the Capphagus of the Capphagus Response of the Response of the Response Response of the Response of the Response Response of the Response of the Response of the Response Response of the Res	9 95 95 3
SEEP C. N. Thrombosel the P. open in on the Basis of Chinal Material of the Last Theretee Venn RECHEEF F. L. An E. perins mid St. dy of the Mast mote Circul tion in the D. g. Local art Vidwards F. I ostoperature Pulm ry Embolium Blood Transfusion OBRIEN R. A. HARTIEV P. MACKIF T. J. and Others D. Seuds no of Immunity MANOVI. H. H. Cha. ges. is the Blood P. cture F. Howing Sconders Irradiation Lymph Veneste and Glands AMPTIC. J. N. and Kurmett. H. Jr. Th. Fromation of The ris Dot. 47: It to la and Lig- In no fib. Thoracic D. ct.	332 33 333 336	the Capphagus by Radation I'A C. McCartry J E. and Onnour B. H. The Effect o Gastins Secret in of Exposure of Abdomnal and Time characts to the Resistra Response of the Capphagus of the Capphagus Response of the Response of the Response Response of the Response of the Response Response of the Response of the Response of the Response Response of the Res	9 95 05 3 3 3 3 3 3
SEEP C. N. Thrombosel the P. open in on the Basis of Chinal Material of the Last Theretee Venn RECHEEF F. L. An E. perins stal St. dy of the Mast mote Circul tion in the D. g. Local art Videnack F. I ostoperative Pulm ry Embolum Blood Transfusion OBRIEN R. A. HARTIEV P. Mackir T. J. and Others D. Seuds no of Immunity Marvott H. H. Char get in the Blood P. cture F. Howing Kornigen Irradiation Lymph Venesics and Glands AMPTIC. J. N. and Kurmett. H. Jr. Th. F. mention of The ris D. c. C. It to lased Lig- u. nof th. Thoraco D. et al. to the Con- SURGICAL TECHNIQUE Observing Surgety and Technique P. t. perative	333 333 336 336	the Capphagus by Radation I'A C. McCartry J E. and Onnour B. H. The Effect o Gastins Secret in of Exposure of Abdomnal and Time characts to the Resistra Response of the Capphagus of the Capphagus Response of the Response of the Response Response of the Response of the Response Response of the Response of the Response of the Response Response of the Res	9 95 05 3 3 3 3 3 3
Stope C. N. Thrombossi the Propert month Basis of Chinal Mitteral of the Last Trusteen Varies RECHEEF T. L. An E perus stal St dy of the Mass mote Cured tion in the D g Deve and Mississipper of the Court and Mississipper Blood Transfusion OBRIEN R. A. Haarier P. Macrier T. J. and Others Decus no of immunity Marovet H. H. Cha ges i the Blood Peture F. Howing Secution 11. Lymph Vergels and Glands Anyret J. H. M. and Krienett. H. Jr. Th T. mathin of The rich D. ct Ji tola and Lig to of the Thoracic D. ct Surgical Technique Operative Surgery and Technique Operative Surgery and Technique P. t perative	333 333 336 336	the Capphagus by Radation I'A C. McCartry J E. and Onnour B. H. The Effect o Gastins Secret in of Exposure of Abdomnal and Time characts to the Resistra Response of the Capphagus of the Capphagus Response of the Response of the Response Response of the Response of the Response Response of the Response of the Response of the Response Response of the Res	9 95 95 3 3 5 5 8 3 9
SEEP C. N. Thrombosel the P. open in on the Basis of Chinal Material of the Last Theretee Venn RECHEEF F. L. An E. perins stal St. dy of the Mast mote Circul tion in the D. g. Local art Videnack F. I ostoperative Pulm ry Embolum Blood Transfusion OBRIEN R. A. HARTIEV P. Mackir T. J. and Others D. Seuds no of Immunity Marvott H. H. Char get in the Blood P. cture F. Howing Kornigen Irradiation Lymph Venesics and Glands AMPTIC. J. N. and Kurmett. H. Jr. Th. F. mention of The ris D. c. C. It to lased Lig- u. nof th. Thoraco D. et al. to the Con- SURGICAL TECHNIQUE Observing Surgety and Technique P. t. perative	333 333 336 336	the Capphagus by Radaton I'A C. McCattry J E. and Onstore B. H. The Effect of Olivative Secret in of Exposure of Radio and the Capphagus of the Capphagus Raya Ceres A. The Y Ray Appearance I G. Inc. a d D orient User S. C miled by th. Findings Ceres A. The Y Ray Appearance I G. Inc. a d D orient User S. C miled by th. Findings Capphagus Capphag	9 95 95 3 3 3 3 3 3 3 9
Stope C. N. Thrombossi the Propert month Basis of Chinal Mitteral of the Last Trusteen Varies RECHEEF T. L. An E perus stal St dy of the Mass mote Cured tion in the D g Deve and Mississipper of the Court and Mississipper Blood Transfusion OBRIEN R. A. Haarier P. Macrier T. J. and Others Decus no of immunity Marovet H. H. Cha ges i the Blood Peture F. Howing Secution 11. Lymph Vergels and Glands Anyret J. H. M. and Krienett. H. Jr. Th T. mathin of The rich D. ct Ji tola and Lig to of the Thoracic D. ct Surgical Technique Operative Surgery and Technique Operative Surgery and Technique P. t perative	333 333 336 336	the Capphagus by Radation I'A C. MicCartry J E. and Onshorr B. H. The Effect o Chartry J E. and Onshorr B. H. The Effect o Chartry J E. and Onshorr B. H. The Effect o Chartry B. C. Capphagus of Abdomnal and The receives to the Receipter German A. The Y Ray Appearance I G Inc. a d. D oftend Ulder S. C middled by the Findings COMMAN R. D. and COUNSELLER V. S. Th. Rocatech logical D geoms of Ch bryslic Dasach to the Chartry R. D. The Montage D. C. Capphagus C. C. Marry C. L. Rocars P. T. and Fisher N. F. The Effect the Rocalers Rays on the Advanta Gland Metallic D. G. De est of Chartry of Chartry Gland Metallic D. C. The School Has J. Lin D. g. Boots as D. (minuted by the V. Ray I. D. C.	9 95 95 3 3 5 5 8 3 9

337

AUTHORS

OF THE ORIGINAL CONTRIBUTIONS WHICH THE ABSTRACTED IN THIS NUMBER

Ande on H G 239 B bcock W W 94 Bab A 306 B uer J 319 B h W M 99 Beck C S 29 Beck C S 29 B ker W 338 Be kman II 335 B hrend M 297 B W W P 97 B dt t W I 77 B ddl A G 278 B dgood C Y 3 4 B 25 H 392 B rche E 66 Boothby W W 9 B a y 11 sec 3"
B rch E o 66
Boothby W M 83
B rnt M 130
B rnt M 130
B rnt M 130
Long B rnt M 130
Long B rnt M 130
Long B rnt M 131
Long B R D 1 3 317
Long B R D 1 3 317
Long B R D 1 3 317
Chare B 23 317
Count B rd Y S 2
C ep A 205
Long B 7 S 5
D 1 m 2 D 1 3
D 1 m 2 D 1 3
D 1 g finite 1 187 D Crood A 9 D 1 genate II 87 D wd C N S Druty D R 300 Duk 8 C 200 Edw ds S 99 Ehrenfest II 3 3 E Es berg C 335 F Ita B 318 Fnk K 3 Fuk F N F F b A C . FbsA(3 Frank n S W 4 So

Fraset J S 85 Ferst W 3 5 Gardiner W T Gellhorn G 3 o Ghiro V 283 Gulden C 276 G adl H S 78 G ne D C 9 Gunderma n W 30 Hannek A 3 2 H riley F 333 H denr cl A J 336 Helmholz H F 325 H nderson M S 338 Herrman C S 297 Hess F 32 H e E 3 H sse berger E 3 8 H see berger E 3 8
Hil J II 393
Hill W 393
Hirschm n L J 399
Hord r S T 3 2
Hueck H 383
Hunt V C 3 4
Loy A C 95
Jeders G 85
I rdan H E 303
kahn W 5 8
Kapla I I 336
K N D 3 31 Rapla I I 336
h pp B 35
h pp B 37
h pp g H W 333
h pumm loff C 317
ha pley J N 288
L yton T B 70
hee B J 80
heghto W E 330
heghto W E 330 Le n 337 Le in M 337 L ne S A 9 L T M 77 Lockh rt Yumm y 9

L ckh et Mummery P Lochr W Lo e h 79 Lo sley O S 316 Lyt r J C 93 Vi eC rty Vi C 208 Viack T J 333 M clay N Muk M 83 Nichola B H 321 Nobl T P 3 9 O B 10 B A 333 O haner A J 82 Olbry ht J 320 Or doff B H 95 Paud k R 3 5 Pako dy k 87 Peil E 316 Pembert n F A 300 P field W G 87 Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printed W G 87
Printe

Ram It M 30 R kt F W 20

Rathbun N P 32 Reh rd F L 332 Reh rd N 3 6 R ddoch G 276 R bertson H E Rob nson E M 303 Robinson E. M. 303 Rodrigue M. C. 301 Roeder C. A. 207 Rogers F. T. 3 o Rog rs. H. E. 326 Rolin k. H. C. 325 Ross E L 279 Sal mon R 306 Salmon R 300
S gent P 285
Schmidt H 296
Scott S 270
Sepp G W 3 8
Simmons C C 28
S mon H E 3 8
Sm 11 A B 299 Sm II A B 290
Sm th C 339
Sm th C 339
Smith S A 53
Speed J S 33
Splab ry Sir B 32
Sienhardt B 308
ht glbauer R 317
Stu ling W C 326
Stoeckel W 3 S
Tann nb um N C
Tuker M B 84
Thomas S 84 Tinker M B 82 Thomso S St C : Townse d R S 3 : V n Brunn M ago V n Brunn M 296
Waithard H 322
Webe F P 3 3 3
Wel Y J S 331
White H P W 3
Wood F C 336
W 1 ley G 286
V 1 ley G 286 35 71mmermann E L 277

BIBLIOGRAPHY

Surgery of the Head and Neck		\ *b:m	3
II d	140	Miscett e	352
Fye	340		33.
Ear	341	Genito-Uninary Surgery	
∖ se a d Sinuses	341	Vir nal K d es and U t	3 3
Mouth	34	BI dde Urethra and I em	354
Pharynx	34	Ge tal Organs	354
Neck	342	Misc Han us	354
Surgery of the Nervous System		P 44. P P	
	343		355
	343		350
	343		326
S	311		332
\ х.ш	344		037
	• • • •	Surgery of the Blood and Lymph Systems	
Surgery of the Chest		Blood Vessel	357
	344	Blood, Tran fu t	357
1	344	Lymph Vessels and Glands	357
	345	* * *	
	345	Surgical Technique	
piter maneons	345	Operate e S rgery s d Technique P t perati s	
		Treatm t	358
Surgery of the Abdomen		Anterept c S rgery Treatment of Wounds and	
Abdominsi Walland Pritoneum	345	Injects n	358
Gastro-Intestinal Tract	346	Anasthesia	355
Liver G ll Bladder Pancre s d Spleen	348		
Miscellaneous	349	Physicochemical Methods in Surgery	
C		Roentgenology	359
Gynecology		Rade m	339
Uterus	349	31 scellaneou	359
Adne 1 d Jen i n e Conditio s	349		
External Genitalia	350	Micellaneous	
Miscell neous	350	Clan 1Lptst s-C traffthy 1 gr 1C dt s	36
Obstetrics		Gen ral Bact nal Myrou and I rotozoan Inf	
		t ns	360 360
Pregnancy and Its Comple tions	350	D ti as Gland	369
Labor ad Its Complications	35	S rgical Pathol go and Dugnos	300
Puerpenum and Its Complications.	352	II p tal Medical Ed catt and History	300

INTERNATIONAL ABSTRACT OF SURGERY

APRIL 1925

ABSTRACTS OF CURRENT LITERATURE

SURGERY OF THE HEAD AND NECK

EYE

therefore resi to infection poorly. Foreign bodie must be completely removed under proper anys

Butl r T II Foc I Illumination of the Eye with Speci 1 R ference to the Clinical Use of Gull atrand a Shit Lamp B t J Ophik 19 4 vs. 561

A A 2201

the si lamp

I c tus one of the eye the sht lamp shows blood co puscles n the ante or chamber. It is of impor tance a so in determ n ng wh ther or not penetral ng wounds of the cornea have perforated into the antenn chamber

In many aged persons infiltration of the iris with p gment is een Koeppe considers this pathog nome c of glaucoma but Vogt finds it in ag d serious ca es and atropine are necessary. Sometimes

u t ii A study of the su persory ligament

sus assured tenses Several types f cataract are pictured and de scribed. The existence of a retrolental space is proved by the fact that blood sinks to the but om as in a hyphæmia LYMAN A COP & M D

Campbell D M and Ca ter J M Industri 1 Ocula Injuri C ad a M A J 94 1 95

EDITOR'S COMMENT

TWO articles on postoperative complications in this month assured the Art react electrons to the property of postoperative pulmonary embolism (p. 33) and Marticloff serview of the results of the administration of esertie and strychmer for the prevention of postoperative distention (p. 14). The latter abstract particularly emphasizes the constant tendency toward a more simple and rational regime in the postoperative care of sur gical cises.

Postoperative results are difficult to evaluate but are of obvious and primary importunce for a correct estimation of the value of surgical procedures. A number of studies of postoperative results are abstracted in the current issue Tinker Och ner and Dowl (p. 28) in three separate articles report the end results of operations for goiner reports which represent in the aggregate a considerable number of cases Stocked (p. 30) reviews the results of treatment in s con cases of malpo ition of the uterus operated upon as the Unitervity Oppocological Clause at Leping. Bumm (p. 300) discusses the relation between virulence tests and nostoperative more

from their u.e in gynecological and obstetical cases. Helimholz and Millikin (p. 323) report the clinical and experimental results of various methods of treating pyelocystitis and emphasize the value of calcium chloride for rendering an alkaline urine acid

experience of industrial ocular injuries (p. 27c) Dandy's description of a method of transistaphy-lococcus and streptococcu meningitis by drainage of the cisteria magna (p. 28c). Hunst review of 106 cases of perinephinic absences (p. 324) and Magnus report of experimental observations regarding the fate of fat transplants in arthroplasti, (p. 320) are contributions to teresting and important chapters in surgical study.

MacCarty's report of the mi ero copic findings in a large number of excised duodenal ulcars (p 208) comprise a clareut summary of the

n lerciti

tococci in the cervical ulcer and in such cases refraining from operation

Gellhorn (p 310) reviews the field of at plication for milk injections and the results obtained

condition

i

convince himself that these are of much importance He therefore confines his article to a review of the

The second case reported by L1 was a case of syphilitic intercalary staphyloma in which enuclea tion was not nece sary

ZIMMERMANN S article is based on a study of 190 patients with syphilitic indocyclitis. In 568 per cent the condition developed during the first year of infection. The author states that inti is cloom

associated with frank tertiary le ions The factors influencing the development of

formerly

ı

Iridocycliti constituted over 40 per cent of the ocular lesions of acquired syphili ob rved during a period of two years. In some of the cases a recurrence developed. Recurrences were especially apt to appear when the arsphenamin treatment con sisted of orly six or fewer doses. They may appear immediately after the treatment or may be delayed for from one to three months

The opinions of several ophthalmologists are quoted as to the relationsh p of initis and neuro syphili Zimmermann seems to be of the opinion

porarily

The invation of the corner by blood vessels should be promoted by the use of d onin and occasionally eserine Change has found that the blood vessels completely disappear in the majority of cases properly treated T OWAS D ALLEN M D

> sometimes lead to error as there is a certain per centage of all patients who have a positive reaction bether they have an ir t s or not and an i itis in a syph lit c may be due to some other eause than syphilis THOMAS D ALLEN M D

Benedict W L The T eatment of Uveul Disc 8 8 Stt MA 0 4 4 8

The incidence and treatment of diseases of the uv a are discussed. Diseases of the uveal tract u u lly occur in association with tuberculosis yphilis and var ous id opithic onditions. It was these second ry man festations rather than in co genital defects or neorlasms of the eye that

Bened ct was interested

Uvertis s almost always and (att e of disease in

F ve ye is before the patient was seen by the author he h d a chancre and five months previously he had been re infected. Although the yphiloma was very large cau mg bug ng of the sclera and

uveal tract

Lifforts bave been made to reproduce these dis eases experimentally. Into has be n cau ed 12 ammals by the transplantation of spirochete. When cultu s of the bac thus of tuberculosis from patients with uve tis were i jecte i into animals a generalized

The value of the magnet in cases of ocular injuries hes first in making a diagnosis and second in removing intra ocular foreign bodies. The authors use the grant Victor magnet and as a rule prefer removal by the anterior route The removal of foreign bodies from various anatomical divisions of the eye and its appe fages n

< til corneal in unes h la ha s

Riddoch G and Goulden C On the Relation ship Between Subarachnold and Intra Ocular Harmorrhage Proc Roy Soc Md Lad 914 w w Sect Ophth a

Quincke pointed out twenty years ago that und r certain conditions the presence of blood in the spinal fluid is a clear indication of bleeding into the sub

4.5 CICILIER If the fo e en body ! of the

the

e1 1 1

metal in the fluids of the eye must be remo ed ancurism Fromptly 1 of h

R Adach

٠

keisi me is magnetiz d before it is used a small foreign body may follow it out when it is withdrawn A foreign body in the iris is not always easy to Is gnow 1 m It h !

> V LANG HI CASCS II HICH DIOOR DAS SDREAG into the ontic nerve sheath from a subgrachnoid hamorrhage whether spontaneous (as in all of the cases rej orted in this article) or due to fracture of the alend.

> The most common abnormality is papilledema Thus is usually I dateral very rapid in its onset and

u.S L Hent can be shut off quickly

> all a dido a tases vitigous hemorninge was common and made an early vew I the fundus difficult ~

entrance

The art (le is summarized as follows

I Emphasis is la I on the great importance of th

Chance B On th Tre trn ut of Parenchymatous A ratitis All t M J 924 XXVII 62

No new t e tment of any great val e has been ggested very recently for parenchymatou k ra intis While a number I remedies have b n sug gested enthus astically Chance has not been able t

Gardiner W T Ottris Media in Measles J Lary 201 & Otol 1924 7x < 614

Of 1 331 cases of measles admitted to the hospital in a period of four years 13 5 per cent developed of this media. The author reaches the following conclusions

1 Uncomplicated measles does not give rise to such a severe form of otitis media as does scarlet

fever

2 The disease is confined to the mucous mem brane to a far greater degree as evidenced by the frequency of central perforations

3 It may develop an i cause a masto d complication in cases in which there are no adenoid vegetations and in those in which adenoids have been successfully removed some time reviously

4 When adenoids are absent the middle ear suppuration responds to conservative treatment When adenoids are pre ent they tend to keep up the discharge and to render mastoid complication more probable their removal usually clears up the discharge very rapidly.

6 The foll is up of ortits media in cases of measles is most neces ary in order that proper conservative treatment and even operative treatment may be given. For this purpose a social service organization would be of the greatest value.

JAMES C REAS FLL M D

Ross E 1 Ottis Medi in Scarlet Fever A

uist period from 1913 to 1917 the condition

1 te treatment followed with few variations to the Distant Hospital the profusely discharging ear was irrigated with warm boric and solution. As the discharge became less t was treated with borze at din algobio increase.

the discharge became less t was treated with boric at d in alcohol interes ed from 30 to 95 per cent. The last d scha ges were eliminated through a gauge wick j faced in the aural canal. Discharges with a foul odor were treated with weak permanganate incations.

Complete o such as nephrets aden to myo card us tonsill its and a thrite d d not appear to b responsible for the ottus meius d in a per spose the patient to these commelia d in a per spose the patient to these completations.

Layton T B Scott S Love K and Others

pera la ser

otitis media of scarlet fever the infection has a

1 ILLIAM B STARK SI D

NOSE AND SINUSES

Malini k C --

ry and Endo Nasal

The cartilage transplant can be molded without difficulty retains its size and shape and is easily obtained from the costal cartilage. The use of ivery transplants is indicated in pronounced deformaties where a large amount of substance is nece size to

not s takes
tocal anasthesia: induced with a r per cent solution
of non-ocain with adrenalin

tuberculosis u ually occurre l in only a few cases

The technique includes de p infiltration of the orbit with novocaine control of the orbitularis by canthatomy and narcotization Total & D. Arrey M.D.

was the infection localized in the eye. The ophthal

Gradle 1 S The Use of Adren tin in Increased

snimals with cultures from the teeth of patients uffering from trus Clinical tritis resulted and hen the 1 ased eyes were removed and sectioned

forces Ocufar Ten ion Am J Oblik tota 28. In the last fifteen years samous observers have

iritis cause f by an embolic process in the base of the III was demonstrate ! The tratment formerly const te tin local mercury inunctions and the administration of nota sums loch fe by mouth In 1913 and 1919 because of th good results obtaine f by Stokes in the use of val arean in tuberculosis of the skin, the author the I non specife arsphenamine in the treatment of

the mic infection

EAR

Blddl A G. Modern Cataract Operations 3/ d 10 4 XX 434 -١¢

Plum A Radiography of the Temporal Bone in Ear Disease J L ryng ! 6-01 1 1924 axxis 618 The progress of roentgenography of the masted an i os petro um h s b en slow chien because th

preforme teared a part advance

m

The method now used by Plum is a medification

161

ing trasons s No pressur is placed upon the eye 2 Very little suction is made by the Creen

aup ratus The evelids are held securely

ry div that is only in the

Germany One hundred and twenty five of the patients vere females The nodular goiters were the diffuse colloid goiters in

life Cases of dysthyroidism or hypothyroidism were

type A diffuse Basedow goster was found in thirty

times
In general the Rostock cases indicate that the

1

cian Il cancer is recognized in its early stage before metastages have taken place its destruction will effect a cure. The local growth can be rem ved surgically or dest oyed by cauterization radium irradiation or fulguration.

MATTHEW N FEDERSPIEL M D

NECK

Hueck H. The Paralleliam Between the Clinical and Hietological Pictures of Gotter (Zu F ge d 3 P rall b mu wische kin chem u d h tol gi chem B ld der Struma). A h f hl. Ch 194 Ch. 75 proliferating gotter. In four cases of severe ex

The endonasal incision is made under the inferior border of the triangular cartilage. Through this

7 When a neurosis is associated with a struc tural defect or pyogenic infection it must be in cluded in the treatment Orro W Rorr Wh

Dayl ran c ... o

The author discusses in detail many phases of antrum infection especially in relation to dutal conditions. He weighs the various operation

compressed for a few minutes to obtain complete

advised

THOMAS C. GATLOWAY M.D.

anatomical forceps. A compressive dressing the applied by means of a copper splint padded with

мошти

Franken S W A The Lenox Hill Hospital Plan for the Dental Care of Hospital Pati ats J Am M 1 1024 | 21 1256

In a study of the dental service previously established in the hospitals of New York the autho

Muclay N hasal Neurosco B 1 31 J 1924 1 996
The author divides nasal neuroscs into three

cases

Every patient is examined by the dental intern. His mouth condition is reported his teeth are cleaned temporary treatment is given any paniful condition of the mouth temporary fillings are placed in carrous teeth a tooth brush is supplied and

Simmons C C Car Inom fith Buccal M cous Membran Bost M & S J 9 4 8

Simmons reports he e perience in the care of carcinoma of the buccal mucous memb ane at the

One hundred and three of the patients are enjoy ang good health and are able to do at feast the three health and are able to do avoid over lidism. Four Five died in	and new heave
ARTEUR L. SIELEFEER M.D.	
~ P The Form and Position	gotter 4 m1
	1
- down on of the trachea may	
	point closed
remaining portion o the to a feet the pressure upon the traches (4) if recurrence does not develop in the remaining portion of the thy roid gland. As all of these requirements are frequently mot	pensatory Lux Cau frequently operative tequire further treatment frequently operative M L Mason M D
placement to the opposite side occurs	Boothby W. M. The Use of Iodine in Exophthal mic Golter E doc 1101 gy 1914 V 727 Io line administered to patients with adenomatous
Day of T. I. Surviced After Treatment in Thy	ŀ

Dea or T L Surgical After Treatment in The rold Disease Am J S & 9 4 2 201 206

Recovery in serious cases of gotter depends upon the pre-operative ope tive and postoperative care. The po toperative care has not received sufficient attention.

Pre operativ care will bring down the mortality

from the acute postoperative exophthalmic goiter

un roudectomy

Ghiron V Changes in Skeletal Growth in Para thyroidectomized Dog (L li 210 i d li c esc m to n li sch i t de ani p ratir p vi) A k t i d k 10 4 38

In experiments on dogs Chiran removed the two external parathyroids and a part of the thyroil containing one internal parathyroid the study of the animals after varying periods of time demon strated that the bones are the first issues to be affected by parathyroidectomy while the cartilage

Tinker M B End Results in Some Conditions L Associated with or Possibly Caused by Golter A n S rg 19 4 lxxx 383

Ochsner A J End Results of Golter Operations
An Srg 1924 1 xx 389

Dond C. N A Report of the Results of Operation on a Group of 150 Cases of Golter As-

twelve of Tinker's patients who were pregnant at

Dangerously high blood pressures are frequently influenced favorably by thyroidectomy but thus far the author has been unable to discover any criterion enabling him to select patients with a high blood pressure who would be benefted by operatio from those in whom no improvement could be at

pected from surgical treatment
OCHENER reports the 500 replies to a question
naire sent to 1 200 patients operated upon by him

programately, normal stringth whiling it ear usual after the operation is give cent remained weak for more than a year.

The mationity of the patients have not followed.

all cases of the extremely toxic adenomatous and exophihalm c gosters he sees but in no instance

to some extent from tachyeardia or some other

directions constantly since they left the hosp talbut there has been practically no difference in the

thalmos may continue to lessen long after the gen eral physical condition has come back to normal

The advice to be given an aged person suffering seriously with goiter is often a difficult question since experience as to the end results in older patients is limited

The important i issuence of the thyroid in devel

theed from two to more years later from a case in it than gotter. Aside from these the condition was worse after the operation in only 16 per cent of

the cases

Down reports on 150 cases of go ter operated upon
by him in the period from 1850 to 1024. The types
of go ter v ned from acute hyperplastic gotters of
netwhelming tov by to encapsulated cysts with
little or no toxicity. Toxic adenomats however.

SURGERY OF THE NERVOUS SYSTEM

BRAIN AND ITS COVERINGS CRANIAL NERVES

France J S Cerebellar Abscess B # M J 924 u cot

Fraser's statistics are in agreement with those generally cited to show that cerebellar abscess follows chronic purulent otitis media far more frequently than it follows acute middle ear diseas He believes that cerebellar abscess is usually associated with an extradural abscess in the posterior fossa with or without sinus thrombosis. Labyrinth suppuration

was present in only two of his eight cases In only one half of the cases was the diagnosa at all certain before operation but it is to be remarked that several cases were operated upon before com

plete and careful neurological examinations were

tollowe 1 by uninterrupted recovery LOYAL DAVIS M D

King J P T Th T

ton bull of rest act

Howed to remain for any length of time the

p e ent extension of injection and unroofs the abscess cavity by completely removing the brain substance overlying it He then completely empties the remaining portion of the abscess causty and allows a temporary hermation of the brain to take place thr ugh the cran al defect to that no dramage with drainage mat rial will be required. Subsequently he irrigates the area w th Dakin's solution

and protects and at the same time compresses the cerebral herma by suitable dressings

He reports the cases of three patients with brain abscess who were treated in this manner and entirely recovered. The technique of the operation and subsequent operation are described in detail

LOYAL DAVIS M D

This article is a rather general discussion of the

guarantee of anyth ng helpful and that the better the neurologist the less the need for ventriculography The question was raised whether an increase in

the protein content of the cerebrospinal fluid obtain d by lumbar puncture or the arrest of lipiodol would give the earliest evidence of spinal compression The evidence reported was in favor of the estimation of the protein content LA YAL DAVIS M D

Dandy II P

Since Sir Victor Horsley first applied the principle of trugation of the apinal subarachnoid space with mild antiseptic solutions in cases of meningitis three types of treatment have been tried repeated tumbar punctures (2) continuous drainage from the spinal canal the cisterna magna and the pontine cisterna and (3) irrigations of the subarachnoid space by mild antiseptic solutions. None of these methods has demonstrated any outstanding superiority in its results over those obtained when the case is left alone

Frequent lumbar punctures cannot have more than a minimal and transient beneficial effect in the acute phase of meningitis This impress on is based not naly upon abservations on punctures in men ingitis but also upon analogous aspirations of empyema or other localized injections. In a more chroni phase in which pressure i a conspicuous feature of the symptoms sufficient b nef m w h

Gbton sees a resemblance between his findings and the clinical findings in ruchitis and osteogenesis i nperfecta. He believes that in the pathogenesis of rachitis the parathyroids are f more importance than the thirds.

W. A. BERNAN

Thomson Str St C Tuberculosis of the Laryn
Its Significance to the Physician Ls f 1922
EC II 048

ears sounded of ar and normal

The frequency with which the lary us is involved increases with the progress of the pulmonary disease. The lary us may be attected in 48 per cent of cases.

in the early stages. At this period the prognosis may well be called favorable. Its most common site is the posterior commissure. Next in frequency of

alive from one to ten years later as of those who h d tuberculous larvingitis. Of the patients who were

represent about ag per cent of those treated. These curres he attribute to knambroum regions rest of the larvax and the use of the galvanocautery. Of the 110 persons with complete healing of the laryar susty as ewere alive from two to ten years latter favir are dead but in most of these the laryar was still headed at the time of death. Most of the daths were due to the extent above that the disc see mas not advance in the same manner in the lungs and 1 pax.

While a spontaneous cure has taken place in th lary nx in many instances and has been ma ntain d until the patient ded of his pulmonary disesse years afterward the reverse has never occurred

STANLEY J SEECE MD

SURGERY OF THE CHEST

CHEST WALL AND BREAST

- V F proper Ben

Gyn c & Obst 1924 3x 1 580

Le

Inflammatory caremoma of the female brea t pr sents such unusual clinical manifestations that it is frequently misinterpreted. The disease is rare

Pleraceini P A Case of Sollrary Cyatic Cancer of the Breast (Sop a un can ro a cisti un c 1 ll mammella) A n stal di ch 10 4 11 905

Pieraccim reports a case of epithelioma of the

breast in a woman 58 years of age The lesion was a large ovoid excavated ulcer near the napple which discharged a slightly feetid secre

with polymorphous equipment it strona On the basis of this finding and the clinical course the diagnosi of solitary cystic cancer was made This is a very rare type of epithelioma of the

out The condition usually develops in pendulous breasts In one half of the cases factation has never occurred The rate of growth is startling in its rapidity the entire breast often being filled in a few weeks. The overlying skin is reddened and brawny The redness may extend far beyond the hand of the

at times is didematous. The AL Aly 41 4

n In

Woolsey G Late Recurrence After Radical Opera ston for Carcinoma of the Breast Ann Surg tota lxxx out

The author reports two cases of cancer of the breast in which a local recurrence developed twelve and eleven years respectively after the primary radical operation. In one case there was also a car cinoma of the other breast

After radical operation for carcinoma of the breast r currence is the rule rather than the exception

The infammatory p cture presented persists to the end

The mic oscop c findings vary from comedocar on carcinoma simplex mammary carcinoma in ading I rmal lymphatics and large alveolar car cin ma to seir hous carcinoma. There is no one type of p thological picture. Several sections were studi d for bacteria but no single type of patho logical org ni m was found

Surgery s meff cient in this disease. The X ray flers the best hance of rehel Of twenty fiv patient who have been under observation long enough to be included in a report fourteen have ded so e are succumling to the disease and four may be regarded as doing well The average duration of the disease after ad

mission to the hospital is 83 months while the aver g total duration is two years RALPH B BETTMAN M.D.

has not been so marked as might be expected be cause more advanced cases are now being treated surgically

Mills found a six year cute in 10 8 per cent of all cases and in 62 o per cent of cases without gland in vasion Sistrunk found 36 7 per cent of all patients all e from five to eight years after operation and 64 per cent of those without involvement of the glands The chief factors influencing the ultimate results are the duration and stage of the growth the presence of lymphatic involvement the type of

the cancer and the age of the patient. Of these the duration of the growth is the most important Local and regional recurrences are often per istent and virulent. Whether this lowered resis tance is a general process-a diminution of cellular differentiation and hyalinization-or is due to a local weakening or absorption of the tissues encap

٠

i

and the entire subarachood space are always infected and the topography of the cerebropal space is such that irrigation of more than a small part of the entire system is imposs ble regardless of the sites of the punctures. The two favorable sites for continuous cerebro pand dranage are the lumbar spinal canal and the casterns magna. Con tunuous dranage of the literal ventricle is difficult and very impractical except under unusual enrum stances.

thick purulent exudate from the larger cisterar or the spinal canal and it surely cannot be drained from the finer rad cles of the subarachnoid space even in the very early stages of the infection. For

longer be absorbed in more than minimal amounts. These opening are therefore al solutely necessary for the circulation of cerebrospinal fluid, the integrity of the brain and life.

into the unprotected cisterna migna. The funnel end of a small catheter is suture? to both suice of the open dura with catguit? gatures. The mouth of the catheter is thus fixed to the dura and flush with

At the points of fixation the tube is made wider than the dural slt to insure against its possible intrusion against the brill. Add tonal insure against such a possibility is obtained by suturing the tube to the trapezius muscle with catgut and to the skin with silk.

Dural openings above and below the fixed mouth

canal ... r f t on the nossi

the lateral aperture

The author r ports four cases treated in this manner. All were accidental infections of the me

ming a without other complications except that

HEART AND PERICARDIUM

Cutier E C Levine S A and Beck C S Th Surgical Tr atment of Mitral Stenosi Expe imental nd Clinic ! Studies A & S g Q24 X 689

the cut valves

Th anthors describe in detail the operative pro cedure with the valvulotome and report a dozen experimental operations performed upon animals

data covers the beginnings of cardiac surgery the si turing of wounds of the heart the beginnings of pulmonary surgery the development of apparatus f r mechanical respiration the Brauer operation Sit Lauder Brunton a proposal phys ological meth

ods for producing les ons in the valves of the heart and experimental surgery of the valves of the heart In another section experimental data and early experiments are reported. The e p riments con sisted of operations with the circulation closed (visual method) attempt to create stenosi by ligatures plication and radium operations per

formed with knives without interruption of the rculation and endoscopic experiments. It was learned that the b art can st nd cons d rable trauma a d recover n rmally To estore poper cad c ontraction the application of hot salt solution directly over the e pos d heat manual m ssage and the use of epi ephna solut on were fou d of g eat value

When the ent re roul tion to and f om the heart a s clamped off for from two to eight minutes covery of a sati factory circulation resulted but was due to hæmorthage Improved operative

at lic an ly of the heart to

in a clasice of the v s hea t to meis on depends on the site of the inci ion Expe ence indicates that the base of the anterior papillary muscle and the coronary vessels and their branches should be avoided. If important trunks are ligated localized infarction may occur Trac 10 1 1 1 11 1

opened and the mitral valve cut under direct in pects n This operation had to be go en up how ever bee u of the damage caused to the higher n ryous cent rs

In other experments an attempt was made to p oduce mechanical m t at stenos a by inserting a puck ring statch in the heat in the reg in of the auriculoventricular ring and by ng edge

tha rego lough th to necks the mes gement or a stenot c m to I ornfice the use of

are use in chronic disease of the mittal

ulating the tumor cells is not known. In Ransohoff a common recurrences result from cancer cells left at the first operation which have remaine firtent for a while Rodman states that many secondary

200

Robe tson II F Endothel oma of the Pleu J C nc Res ch o a 317

The author reviews the literature a 1 traces the theories regarding the origin of the so-called e do thehoma of the pleura f om the arl st reports

section of the superficial and deep fascia has been made. This fact indicates that the superficial nodules develop from the lymphatics in the fascia and hence the deeper structures should always be

removed Judd states that in from to to 12 per cent of late cases the opposite breast is involved. Cancer rarely

anses simultaneously in both breasts According to Bionchetti cancer may rach the ppo ite breast by metastisis in the blood or the

400 te porra

The onset of the s realled endothelioma of the pleura is u ually insidious and the growth may be very extensive before the symptoms become note worthy The physical signs of dulness and impair ment in transmission of the breath sounds appear early Some of the cases may show deformity which at first is a bulging of the interspaces or the entire side of the thorax and later takes the form [

Thoracentes s will demo strate the presence of a

Partie | Museum M.

TRACHEA LUNGS AND PLEURA

Bloney II A Study of 100 Cases f Empyema T eated by a Closed Method B ! M & S J 1024 C 1 1206

This article is summarized as follows

In 100 cases of acute empyema in infants chil dren and adults the mortality following drainage by

3 Twenty one cases required secondary opera tions

4 Sixty eight patients were discharged healed and nin teen with a discharging sinus or a small

The author's speri uc with tumors of the pleura has been similar to that of other writers on the sub ject but as a typical endothelioma of the peri card um was revealed on microscopic study to he a adenocarcinoma a review of the entire quest n

ppeared necessary

This revi w appa ently p oves that only sar comata are pr mary mal gn t tumo of the pleural tissues and that all other growths are s condary repr se ting ate si s implintations r metastas s f om an un ecognized o lat at pr m ty ou ce usually situat d t the lung

M D R LPH B BETTM

CARL K. SIL &

are used instead of seeds with a strength of from 3

Early gastrostomy should be done to maintain the patient is strength and prevent the accumulation above the stricture of a foul stagastaing material which may produce an αsophagitis and cause the absorption of toxins and distasts for food

CRAMES H HEACOCK M D

ilill W Radtum Ti erapy in Canc of the (Esoplagus Th Results of F freen Years E p rience B t M J o24 c6

BiMJ 924 96

In the use of radium in the treatment of cancer of the orsophagus a careful selection of cases 1 necessary as radium irradiation 1 uncertain in it action some malignant formations are much more affected by it that others it is contrained cated when the patient is greatly weakened and it may set up a

ı

thirds of the case had more than one application. In one third the treatment caused remarkable improvement and in another third very substantial improvement. In the remaining third there was only very slight or transitory improvement or none at all or the condition was worse than before the treatment. In three cases death occurred a few days after the treadations. Earl. CR or Trister. M D.

MISCELLANEOUS

Tyt r J C The Pathways of the Med astinum the Lungs and th Pleuræ Am J M Sc 1924 1 88

In one se es of experiments on guinea p gs rab bt and sheep the uthor injected India ink into the mediastinal space and in a second series into the right pleural cavity.

It was found that in the first expe iments the ink passed from the media tinum into the lung substance and the spaces beneath the parietal pleura and in the second passed from the pleural cavity, throughout the right lung into the mediastinal tissues throughout the left lung and into the sub

lymph flow

1

EMIL C ROBITSHER M D

cuculation

administra

valve in man is described. During the operation the pulse respiratory rate and blood pres ure

tion of the pouch or its ablation at once restores the lumen of the resophagus to its normal size J MES C BEASWELL MD

shape of the cardiac shadow. They believe that belo e patients with mitral stenosis are subjected and be thor

De Groodt A Digestion of the (Esophag 2 as a Cause of Hermatemesis (Verdau g des Oesophagus Ursach v H matemesi) 'kdei'
Tid ik G k 10 x 1 vm. 1818

Von Fisel berg observed five cases of humatemess following abd mi all operations which the author between its to be attributed to digestion of the exophagus. The pathological anatomist Teacher of Classow found eighteen easies of digestion of the

il e operation and apparently is in better health than before. The three others survive I the operation ten hours twenty hours and an days respectively. In one of these the endition was complicated by an undagnosed edherent periordium, which

chanced

That the ch nges in the cesophagus had occurred during bie was indicated by the facts that the bleed ing and tissue changes were found beneath th

ESOPHAGUS AND MEDIASTINUM

Mosher Il P Asymmetry of th M with of the Esophagus and Retropharyngeal Di erticula La y g p g24 x i 854

is of a venous nature and less dependent upon the

degree of the digestion than upon stass of the portal circulation

The conditions essential for digestion of the

wide anteroposterior mouth and the larger pouch with a narrow mouth. The larger pouches appear to be pedunculated and often extend into the thorax.

Gene D C The Tre tment of Carcinom of the Cis phagon by Radiation Am J R enit not 9 4 B 411

At the pr sent time the mortality of carcinoma of

Czepa A The X Ray Appearance of Gastric and ings ven den

ons of week later there was 10 evidence of 45 li cases h 1 rs had disappeared permanently made niche it was reater ı curvature Twenty nine of the series of eighty cases were operated upon An ulcer agreeing with the \ tay I in twenty six In three cases II LIC cases vere spastic niches. In four cases of 1 upon and in nine cases altogether there was a GASTRO INTESTINAL TRACT change in the bulb near the ulcer niche which was Ivy A.C. McCaethy J.F. and Orndoff B. II.
The Effect on G. at ic Secretion of Exposure
of Abdominal and Thoracic Areas to the Roent explained by corresponding changes in the duo lenum

or pylorus of ulcer near the pylorus only indirect

its roentgenological appearance respect a fragnosis of parapyloric juxtapyloric or Fi r is a and wid ming of the pyloric canal

n đ)¢

10 ıl

Pen ra s 1

fourt en 1 vs 4 Se e ty five pe cent f a human erythema

gen Rays J 4m 1f A 9 4 1 m1 972 The results of e periments on dogs with thr e different doses of \rank rays are summ rized briefl

mot ms

int stine

stomach

SURGERY OF THE ABDOMEN

ABDOMINAL WALL AND PERITONEUM

Babcock W. W. Methods of Recon tructing the Defective America Abdominal Wall. 18. 10. W. J. 024 X. 144

Among the causes of defects in the abdomnal wall neces lating ref par are exomphilos in the newborn distansis recti in ricles; children rupture of the rectus o other abdomnal muscles following disease in oliese per ons of a neglecte f umbilical or ventral ferture. Front is from vibert muscular action in heritib, percura truma open wounds run hot injuries and id fects resulting from ab lominal Lapectoms incisions should be planned for each care. This operation is well tolerated up to the fortueth year of age. Intra ab lominal tension should be avoided. The important supporting layer is the appopulation.

Incarceration strangulation and infection oft n r quire immediate attention and delay the repair f the defect

In enormou herniæ it mas be necessary to close

D Brien D P Omentopexy Vird J Au 1

Many attempts have been made to drain ascite flux lint the lymphatis 53st m of the subperito eat pace. To operations of this nature the term omen tope 3 has been apply d. The chief object ons to

tten el e a l fect

In cases of la ge until cal here a of the ne born the operation should be for immediately after birth to perent infection. If the elges cannot be approximated the feet and belosed by a thick pedicted skin ship from the adjac ni thorax the abdominal wall it the for arm

The r pur of the leeper lives may be d ferrel for three years or even longer. The km lges should

~~ vn ha m √u

or med distend I and g dually it en in a

1 Wife it naverse overlaps g of the flaps of the divided suct the eigestif the rectibing approximate i and sutured

2 Vertical overl pling of the sac op ed by

1 1

ı

sacling extending from the pylorus to the cards on Resection of three fourths of the stomach was done by the Billroth II method Convalescence was affers mooth but in the fourth week when the patient was about to be discharged be was suddenly, a tend with abdomnal pains with ragidity of the abdomnasi wall. At laparotomy the abdomnasi course of the patient was convent who hours later. Autropse showed the cause of it is bleeding to be a varia of the splene ven with perfortune.

the use of the lines approximating suture as a pivot must be very accurately and uniformly passed

end to end to the large intestine. The operation can be carried out in the manner described by increasing the length of the crushed area in the small intestine. Howaso A McKaucar, M D

Behrend M Beik W P and Herrman C S
Clinical Versus Experimental Anastomosis of
the Hollow Viscera J Am M A s 19 4 lxx u

I be author's experience proves that even patients with true philegmonous gastrius can be saved by gastro enterostomy or resection

Dencis (7)

Roede C A An Improved Technique for Intes

In the technique for intestinal anastomosis de ser ded by Roefer a strip of intestina \$5 or \$1_0 in mide is crushed at an angle of about 50 degrees. An ideal cru ber is a broad sained off Layr clamp. A long narrow bladed clamp is applied to the crushed area adjacent to the segment to be resected and \$2.5 h.

The intestine is amoutated with

The intestine is amoutated with a cautery and the clamps temain ng on the segments to be united

anastomosis

.

Microscopic examination revealed no relation between non absorbable sutures and ulter formation Microscopic examination showed that the best healing was obtained from the all catgut sutures. In only or e case did the chromic catgut remain state n necks after an experiment in which linen and catgut were used.

The widest stoma is obtained with an all interrupted suture. There is little difference in the size of the stoma when a lockstitch is used occasionally in an all continuous suture. Saucer Karv MD

Runkin F W Lympho a come of the Small In testines A n S 1 924 1 2 704

The nds of the sigme to to be anastomosed are will silv approximated by the single temporary

w cl s ly appro smal d by the single temporary in en assure hel) faul let seet two forceps. The uperfloous crushed tissue distal to the sature is gun amputated with a casture two satures about 3s in from the linen suture line so that a rim of rubed intest ne only 5s in which is left. This rime is invert diby a singl | 1 per of Lembert amastomosing suture of line x ll. The an attomosing suture with

In Brunn M. Invagination Heyn Afte Gagtro Enterostomy (U ber de Invaginational u nach Gastroenterost m) Best 2 kl n Ch CX X 100

205

The author s discussion on invagination ileus after

stomach appeared seven months after a gastro enterostomy Obviously the anatomical changes which occurred during this time only approximated those found at operation. As the invagination began in the telunum r c cm below the stomach it must be assumed also that it became disinvocunated at times an I that the entrance of the invarination into the stomach with complete intestinal obstruction was the ultimate stage

In the eight cases so far observed the invagination occurred after anterior gastro enterostomy in three and after posterior gastro enterestomy in five. How ever the conclusion that posterior gastro enteros tomy favors it is not warranted because the ratio of anterior to posterior operations performed is not known Six of the eight a biects vere omen and two of the women were in advanced pregnancy. In the latter the symptoma appeared about a m nth after the beginning of pregnancy. In fve cases the gastro enterestomy s as done because of gastric or

٠

the remaining 30 per cent a more or less marked reduction in the acidity The result d pends upon whether total resect on of the antrum is done. Of twenty one cases of total resects a twenty showed complete anacidity. In fourteen cases of incomplete resection of the antrum free hydrochloric acid was

as assured only when the entire antrum and the pyloric muscle are exci ed. Of therty three cases of total resection of the antrum thirty two showed anac dity With regard to one case (free hydro chloric acid + s) it is assumed according to the Lorenz and Schur theories that isolated pests of m lone clands were left behind. Of seventeen cases

was not entirely removed two showed anacidity before the second operation and three a free hydro-

SCHIENESKA V LA

Bircher E Putrid Infections of th Stomach and the Uppe Part of the Small Intestin (U ber p tnde Inf ht d Magens d obe e Du n darmel D to h Zt ch f Ch 1024 tl V1 400

Phlegmonous and ctions of the stomach and the upper part of the small intestine are very rare and usually are fatal Of as5 ca es recently collected

R a ctions of th St mach and Sci midt II Gastric Ch mistry (U be Mage es ki n n d M gen h m m) A h f kl Chr 9 4 XX 3 7

The author has followed up his checkers of the last four years t determine the gastric cidity after the different types of gastric r sect on

The second case reported was a case of necrotic enterocystoma located on the mesentery and the wall of the abdominal cavity the twisted stalk of which exerted traction in a curved line up and through the mesentery toward a lower loop of the WASSERTRUEDINGER (Z) ileum

Small A B Developmental Erro a in Fixation of the Asc nding Coton Reporting 190 Col

After discussing at length the embryological development of the intestines the author attributes many symptoms and disorders to a faulty develop ment of the ascending olon. His observations and on rative procedure are based on a se ies of 190 cases. In seventy nine of these a previous laparot

directed toward the correction of the ptosis extreme cases surgery is indicated In Beach's cases of potential or partial prolapse the patient is inverted a 50 per cent solution of magnesium sulphate is injected through the proctoscope daily for four or five days and a binder is applied As a rule the condition is relieved by this treatment. A good adjuvant is the application of /3 gr of extract of belladonna three times daily

duced an inch ap rt on a line about / in lateral or posterior to the lateral long tudinal muscular band

the retroperit neal fascia has been dra n away from the psons mu cle and the kidney is prolansed the fossa is opened and the incised fascia line is sutur I to the psoas muscle tendon or the psoas muscle itself. The natural floor for the bowel is th mhh d

believes that the operation of first choice for major

the orient with protagise due to reexation and atrophy of the sphincters the condition may sometimes be cured by having the child defacate in the rechning instead of the sitting posture If this is not successful Jackson buries a fine bronze wire around the anus This is often left in place for weeks or months. The annular cicatrix remaining is a decided reinforcement to the sphi c CLAYTON F ANDRE VS M D

Anderson II G Dukes C Edwards S and Others Discussion on the Treatment of Hæmorrholds by Injection P c Roy So Wed L nd 19 4 x 1 Sect 5 g 75

ANDERSON traced the history of the injection

It is believed that in selected cases colonexy in creases the anatomical and physiologi al efficiency of the entire limentary canal loty W N rest WD

Hirschman L J Lockh rt Mummery Beach W M and Othe a Discus ion of P clay e of the Rectum P R y Soc If d Lo 1 19 4 5 IS g 78

Hissenman described his operation in which he sh riens the mesente y of the sigmoid through an abdom nal 1 ct on life cla ms that the results of this procedure a every satisfactory

I OCKHART MUNIFRY adm tt d the diffculty of tre ting this complisht and described his own

BEACH stated that the theory that prol pse is a her is tenable and discussed the physics and a atomy of the co d to The tre tment sh ul i be

 $\mu\mu$ DE OHY TO uncomplicated internal hamorrhoids. In about 15 per cent of the cases the cond tion recurred but could be cured by a renet tion of the injection

DULES discus ed the changes induce | by injec-

After one day the vessels were found dilated and engorged with blood. The surrounding tissues wŀ

CR! mc n c clo

me , i t reucocytes type of treatment

I vmphosarcoma begins in the lymph follicles and gradually exten is into the mucosa and other coats of the bonel This extension seldom causes per

No carcinomatous duodenal ulcers were found. During the period in which this series of ulc is was collected there were also excised three car cinomata t o adenomata one hamangioma on adenomatous polyp one diverticulum one myoma and munety seven specimens diagnosed as duoden his In this duodenitis are found cellular distruct congestion orderns and migration of leucocytes

Dute

Treatment is usually unsatisfactors. In early

elongated ulcers are frequently found

Szemzoe C A Case of Peptic Ulcer of the Jeju m

In the case reported the symptoms of ulcer ap

earl er with the \ rav An isi ii s a ikino a

111101664 CYRIL J CLASPEL M D

MacCarty W C Excised Duoden 1 Ule rs 3 Am V As 924 1 1 1894

From a stuly of 425 duodenal ulcers and nin tv seven localized inflammatory duodenal areas ex cised at operation the following conclusions are drawn

Chronic eastric and duodenal ulcers are not in frequently multiple

Chronic gastric ulcers are larger (r to 40 mm in diameter) than duodenal ulcers (s to 25 mm in diameter) they have deeper craters (1 to 20 mm anl r to 5 mm) All coats of the organic wall may be exca ated in

both gastric and duodenal ulcers and both types may have their bases adherent to some neighboring organ There is less scar tissue in duodenal ulcers than

gastric ulcers

Duodenal ulcers found at autopsy are shallow having wide craters with sharp thin edges. Those excised during life resemble gastric ulcers more gradually sherter. In the two years just previou to the patient's second entrance into the hosp tal th

pain had be a almost continu us The second operation performed twenty three years after the first revealed a callous perforating peptic ulcer of the jejunum adherent to the nte r abdominal wall. The operation c asisted a e ci sion closure of the gastro enterostoms and a Fi n y

routine proc dure

The case r ported hows also that final judgm nt of the results of an operation for ulcer a possible only after a very long period of time S mi (2)

Locht W Th Clinical Aspect and P thology of Meck I s Ot erticulum and Other Obstructi e Matform tion of the Incompletely Oblit rated

The author reviews the literatur on Meck l

Duod nal ulcers are in the first 5 cm They may occur at the pap lla of Vater causing partial constriction f the ommon d ct and sec ondary cirrhosis of the liver

cases

Rodriguez M C Hydatid Cysts of the Liv r Opening into the Biliary Pa sag s (C ntr b l tudi d los qu st shidatidi osd h g d b t s

las 128 bila es) Sm named 1924 x 2 774

The author reports two ases in which hydatid

cysts opening into the bilary passages produced a syndrome resembling that of gall stones. Vinas has called this condition hydatid cholecystitis.

Both case came to operation. Symple drainage of

Both cases came to operation Simple dramage of the cysts gave excellent results Dramage of the bilian, passages should be reserved

for ca es in a hich a mple dra rage of the cysts is not

followed by improvement

The diagnosis should not be difficult. In the
presence of an acute cn: of high abdominal pain
referable to the biliary passages the diagnosis of

confined largely to one lobe

WILLIAM R. MERKER M.D.

Townsend R S Hepatosis (or Tropical Abscess of the Liber) An Examination into the D ag nosis and Treatm at of This D yease in India with Lapecial Refer not to the Use of Emetine J R y A my M C y Lod 9 y h 4

appearance and 1 mentally depressed and torpud His temperature is irregular. He has on his back with his chest raised and hi lower limbs flexed. There may or may not be a swell gin the right hypochondrum or a bulger of the interrestal spaces.

chondrium or a bulging of the intercostal spaces. In the disgnosis the V-ray is of little aid. One factor of importance is that frequently during the presuppurative stage there i fixation of the dia phragm with increased respiratory movements and no thorance lesson.

The treatment is both medical and surgical Emetine is the drug of greate t value as it kills the another. If amother dysentery i properly treated

(2) exploratory puncture followed by aspiration and the injection of quinine or emetine and (3) explora tory puncture followed by transpleural or abdominal drainage

To establish dramage it is usually necessary to

Gundermann W A Clinical Study of Cholecys titls and Chol ngeltls (Be trag zur Khunk des Ch le y et d Chol g t) Mu a d G e g b d Med u Ch g 4 n såt

t_ n tgets

right lobe. This swell ng my be manifested by mere bulging of the interect at spaces or by a gas of pleurisy depending on the direction a which the absc so is pointing. In Type 3 there a remutent fever without marked challegement of the layer but with signs of inflammation. This type is always acute.

tionship between the two

According t the author's investigations the staphylococcus infections a them st common in cholecystitis at any ag. The tict

The appearance of the hamorrhood that was removed after two days and cated that it had not been reached by the injection

The three day specimen did not show any note orthy changes in the vessels themselves but the tissues were still cedematous and contained extra vasated blood ma ses of polymorphonuclear leuco cytes some lymphocytes and a very large number of mononuclear cells. The characteristic feature was the abundance of mononuclear macror hages. There was no evidence in the specimen of thrombo is of

After four days the appearance was much the same but the leucocyte infiltration was less and the macrophages were relatively more numerous. There was clear evidence of proliferation of fibroblasts. No

The inflammatory changes of the first three days

PERRIN stated that with the use of 10 per cent carbolic acid he obtains an absolute cure in so per cent of the cases and a practical cure in 30 per cent The method is applicable to uncomplicated piles of small size

JELKS and SAPRIR opposed the injection treat

and partly internal ANDERSON reported that poor results are usually due to the use of too strong a solution Phenol should be used in 10 per cent solution CLAYTON F A D EWS MD

LIVER GALL BLADDER PANCREAS AND SPLEEN

Drury D R Studies on the Total Bile VII Conditions Influencing the Calcium Content of the Bite J Exper Med 1921 al 707 The author has made a day to-day study of th

1 hour period varies dire dy with the alli

hile However when this amount becomes great ly lessened as the result of fasting the conce tration of calcium becomes markedly increased though not sufficiently to compensate for the lessened volume

calcum

1

f the

1 m 1 to the bile as some

recurrence develops the patient is then usually

calcium mutu 5 b t by th li er itself

ident b aring on th Thes finds gs have n probl m of chol I thissis Mog is H Kaun M D

ternal piles

willing to undergo an operation

clotting

٠

ı

numb r of those advocating early operation has necrosed Diumg the past five wears the author has op rated upon forty-eight cases of cholethus; tenty-one of which were chrome and twenty were acute 01 the latter seventeen were operated upon before the fourth day and ten between the eight before the fourth day and ten between the other has nortically of 11,5 per cent. Three of the deaths a mortist by of 11,5 per cent. Three of the deaths a mortist by of 11,5 per cent. Three of the deaths corured in chronic cases and four in acute cases One of those in the latter group should not be middled as it was due to espectia abortion. The

is difficult to stop the bleiding those in which it is impossible completely to pertionize the stump of the cystic duct cases of infection of the biliary passages and cases of purulent pertionitis emprema of the gall bladder and following the

case of purulent perstonitis and one of abscess of the liver were hopeless before operation

Cholecyst ctomy was performed in every case

complete closure by suture

Favoning eatly op ration in acute cholecystitus are (i) fewer changes in the gall bladder and the bil ary pushages (s) greater ease or operation (3) fewer that g as in the beart long schincys hever and abdomn all digestive organs (4) absence of the danger of peritonist (s) quicker convalences of the conversation of the conversation of a corcoman in the inflamed gail bladder and (3) greater possibility for complete suturing of the abdominal castly.

Arguments ad need against early operation are the fillowing

r Early operation has a high mortality This argument ad it if h

ce tain number of unnecessary operations would be performed

3 The first diagnosis may be incorrect. This

possibility must h acknowledged but in all of the author's cases in which such an error was made

In favor of complete closure by sufure are (s) an artier r turn o w k

Hr. s (Z)

Robinson E M Surgical Reconstruction of the Biliary Passages So in M & S 1924 lxxvi 510

I it is only

it is only the order bolecysto holecysto

operated upon under local annethesia stand the operation better than he expected. He frequently uses a Murphy button in the anistomosis. The importance of giving the patient his own bile in cases of long standing drainage is emphasized.

O LAR S PROCTOR M D

Jordan II E The Significance of the Spicen in th Light of Embryological Evolutionary and Experimental Data 1 gnd II II nin

941 S37

phory te like cells derived from the mesenchy me and that red cell format on is associated with an up n sistem of sinusoidal blood vessels. However, the

loses its blood forming function the process being su e d d b

In short the postnatal spleen is essentially an embryonic remnant notwithstanding its relatively lage size. Moreover since red bone marrow occurs toward the end of the second month splenic

In the s call decade of life stay by bencem objectivities is more common its next me to common between the forticth and fittieth years of his cimales are affected more frequently than makes. The invasion of staply if cocci is f worded is acute reneral infections and all it of affections. As the reaction depends upon the state of the sympathetic mercous stylent the constitution plays an important areas of stages.

Frequently also the so called catarrhal acteurs is nothing else than a st phylococcus infection. In many cases the gall bladder misolvement begins during the school age. The bistory given includes measles influenza and anginas. Characteristic of staphylococcus choley, this are its chronic course and the fact that it usually does not beg n with supportation. This is not characteristic of staph.

to its previous level Because of the numerous re actions the standard dose of 5 5 gm was reduced to 4 5 gm Even w th this dose there were occasionally moderate react ons There were also delayed reac

emprema is the common and hepatic ducts are usually not dilated the icterus must often be due to causes that lie above. Generally it must be assumed

that cholangeitis is responsible

Recurrences are not very rare. They usually develop in cases of the so called strawberry gall bladder which frequently a associated with cole and almost always demands operation. They are always stanhylocorcus infections.

After the fortieth year of I fe calcul are often found in these infections As a rule the symptoms in

defects

- 1. c mm 1.d

the more common

In these cases pancreatitis is rare after the fortieth year of life. Recurrences develop more frequently after operation for catarrhal staphy lococcus cholecystitis than after the removil of gall bladders containing stones. In general, the prognosis of staphy lococcus cholecystitis is favorable... kock (Z)

Disease I T tra | g24

The adm istration of sod um tetrabromphen I phthalein vas found to be inadvisable whin obstruction of the biliary passages was known to be present. The methol was found to be unsuitable also for out in the with any type of card o vascular.

1

abnormal ties or un ug maining three no abnormalities of filling were observed

The method is founded on a logical basi a d promi s a high degree of diagnostic efficiency fin its pres nt stage of dev lopin at however the test r quies an el borate techn que and occasi nally causes the patient discomfort

If see E Early Operation in Acut Cholecystiti and Remarks on Cl sur of th Abd min i Ca ity by Sutu Following Ch lecyst ctomy

The question of e rly op ration n cute chole cyst it is still unsettled. Rec ntly h weve the

number of those advocating early operation has h thor has n empyema of the gall biaquel a u 'n loses th 8 hs occurred in chronic cases and four in a ut t es One of those in the latter group should not be lud d as it was due to septic abort on The Robinson F M Su gleal Reconstruction of the Cholecystectomy wa performed in every as Billiary Passages So th M & S 1924 lx xvi In common duct obstruction unless it is only the order holecysto holecysto complete closure by suture 1 operated operation b tter than he expected. He irequently uses a Murphy button in the anastomosis The importance abdominal digestive organs (4) absence of the danger of penton tis (5) qu cker convalescence (6) of giving the patient his own bile in cases of long absence of the da ger of the development of a stand ng dramage is emphasized carcinoma in the inflamed gall bladder and (7) O CAS S PROCTO M D greater possibility for complete suturing of the Jordan H E The Significance of the Spleen in the Light of Embryological Evolutionary abdominal cavity Arguments advarced against early operation are and Experimental Data f gin M M th the following 924 h 537 I Early operation has a high mortality. The mhn. performed 3 The first diagnosis m v be incorrect. This possibility must be acknowledged but in all of the uthor's cases in b ch such an error was made blood forming function of the spleen is transient (9 8 per cent) 11

dominate

In short the postnatal spleen is essentially an embryonic remnant notwithstanding its relatively large size. Vorcover since red bone marrow occurs t ward the end of the second month splenic

1

hæmopoiesis is apparently never functionally im portant in mammals. This fact suggests that the spleen is to be interpreted fundamentally as an evolutionary rather than an embryonic remnant. From a study of the racial hi tory of the spleen

the following conclusions are drawn

The spleen represents a segregation of intestinal
and mesenteric lymphocytes in the region of the
stomach These lymphocytes function as home

carbon dioxide and as the reverse aspect of the

sept es it s usus structure and function are sur rendered to and divided between the lymph nodes and red marrow. In mammals the spleen itself per sists as a phylogenetic remnant without essential function. Evolutionary, data c after the embry

evolutionary level represented by the anuran amphib a the splecu is the sole harmocytopoiet corgan. However I imphocytopoiesis is beginning to

bodies or red marrow

GYNECOLOGY

UTERUS

Stockel W. The Operative Treatment of Dis placement of the Uterus and Vaglina (Beitrag r pe t en B h ndlung de Lag e nd rung von Ut ru nd Sch de) Z nt lbt f Gy ack 29 4

operation was done in 363 cases. In the author's opinion uncomplicated mobile retroflexion of the uterus cannot he con idered negligible and must be treated when it is found to be the cause of the

In the authors technique the peritoneal fold usually remains unopened and the inguinal canal i

not split. The nerve is always resected
Of the patients whose cases are reviewed 9 5 per
cent showed recurrences when they were subsequently examined but most of the operations were
lone by young surgeons without a very exact
technique. One futility was due to severe harmor
of the hypogratine vian outside of its healt of
the hypogratine vian outside of its healt of
oneration

In the treatment of fixed retroflexion of the uterus all of the conservatic methods were exhausted by fore operation was decided upon. At the present time the rapidity of sedimentation of the crythrocytes is considered a criterion sed mentation to 18 mm must require longer than an bou. Recently the method of chore has been the flaidly franke promotion.

e fure. To date this method has not been fol

In coloppermeoplasty the isolated suture of the levator muscle is immitted. In the anterior vaginal wall the freshening of the wound edges is made oval and in the posterior wall a triangular flap is always formed.

Subsequent examination of patients subjected to a plastic aperation revealed a recurrence in 5 y per cent. When the descent was associated with dis placement of the uterus the vaginal plastic operation was combined with an Alexander Adams operation of the cases of complete prolapse treated in this way 87 y per cent had a recurrence that of those with only slight or moderate prolapse a recurrence developed in 0.01 x 5 per cent.

cystocele requires attention. In the interposition procedure it is incorrect always to amputate the

stum; s In the cases treated in this manner a

must be observed

1 The remaining vagina must be narrow and most import t of all sufficiently long

2 The vagina must be narrowed throughout its

3 The newly formed vag nal vault must be well fixed

4 The colpoperineoplasty must be sufficiently extensive

Stocckel found a recurrence in only 2 3 per cent of 173 cases in which these requirements were met

In twenty two cases in which fixation to the promontory was done no recurrence was observed one of the dangers of this method is aleus. Possibly this may be also ded by completely closing or widely

and sutured b ck into place by one or twn purse string sutures.

hamopoiesis is apparently never functionally important in mammals. This fact suggests that the spleen is to be interpreted fundamentally as an The conclusion is reached that in all but the erv

evolutionary level tep esented by the anuran amphibia the spleen is the sole hamocytopoietic

ared areas of connective tissue mesonephros fat

nd necrosis Ultimately some of them may become nahgnant

In many cases no treatment is required When the tumor is confined within the uterus radium may be u ed for the control of hamorrhage provided the growth is no larger than a three months pregnancy Contra indications to the use of radium besides large size of the tumor are rapid growth of the neoplasm which suggests progressive changes tumors pro

uterine cavity. In all such cases a myomectomy or hysterectomy must be performed

HARRY W. FINK M.D.

Puccioni L Uteroparietal Fistulie (F' tole utero p jet li) R 1 | d f c 024 li 1 7

The author reports two cases of uteroparietal fistula following exsarean section

The first ca e was that of a 27 year old para vi Operation had been performed for a supposed ovarian cyst but a five months pregnancy was found For some reason a casarean section was done The abdominal wound did not heal and con tinued discharging for a period of two years. The patient then came to the author's clinic where the diagnosis of abdomino uterine fistula was made In the astulous region there was an extensive intes tin I hernia

normal the nuestion arises as to whether these are not cases of adenoma format on Further study as

PLESCH (G)

Polak J O Fibroid Tumors Their Development and How They Produce Symptoms Their Effect on P egnancy and Labo T eatment 1 g M M th 9 4 h 46

should be watched Fibroids probably have their rigin in c genit I tests in and about the blood vess ls w th n the uterine muscles The symptoms include menorrhagia with its secondary effects anamia an increa e in the pulse rate p ipitation dysphera hæmic murmurs etc leucor hera dys me orrhera st ril is an i abortion. I ress re ef

casarean section. This tract ordinarily drained bus but at the menstrual p roods blood issued from it freely

Exam showed portion municati fistulæ

was us any good but th

s us smooth had nodular sharply defined and usually in c

opening the so called aleus pocket —the pocket

the Goettingen Clinic. The ages of the sub e to rang d from 15 to 65 years Forty per cent wer netween 45 and 50 years 29 8 per cent between 40

LIEU LE (U)

Salomon R Leucorrhera and Its Treatment New Biological Methods (Drvsgonal Flyrs d sei e Therapie Neue biolog sch Methode) Al Hehnsch 1924 1 114

secretion is increased in phimonary innertual diseases of the heart chlorosis and animia. The leucorrhors usually ceases when the basic condition is relieved

The fundamental principle of the treatment of

coff us luteum and the other several tiel t In the fourth case one ovary contained a small

follicles with u gen case presented peserved prim ry and young

maintaining a d fv ble culture medium for the varinal

The Etiology of Hyperpl sia of the

recommen is the use of douches in

S H mh uthyperplase) Arch f Gy k 1924 CXXI 448 This article is Lased in the material obt med by

hranch ag uregular forms w r seen is A LA

six case only one or two form w pre ent In curettage of 500 hyperplastic mucous m inbrares at

incidence of virulent bacteria was about 10 per cent while in the gangrenous cases it was 30 per cent. The difference of 10 per cent accounted for the operative mortality.

Of sevents two patients operated upon four showed virulent streptococci three of these died and one developed abscesses. Of sixty eight with

present

Bum burns out the cancerous ulcers before operation distributes with alrohol and intro luces a tampon wet with nitru and. However in cases of virulent bacteria this not sufficient since such bacteria invade the lymph vessels and glands. Attempts to increa the organic resistance were without you! There's no Pumm now determines

immed ately after the removal of a necrotic sub-

streptococci for weeks and may infect their sur roundings and even the surgeon's hands. Because of this fact Bumm has returned to the u e of rubber glove. Factor (G)

the abdomen only b cause the former method is use I for cases that are not very far advanced. The large number of recurrences is explained by the fact that operation was pe formed too late. Improvement in the results depends on early disgnosis and treatment [Execut (a)].

EXTERNAL GENITALIA

Kuhn R. Irradiation or Operation for Carcin ma of the Uterus? (Best blu g od Opr to d (barn tirk ebest) Zt h f o all F ib ld 9 4 357 Pemberton F A Acquired Atres a of the Vagina and Cervix Im J Obt & Gynec 1924 vi 6 5
Of twelve cases of vaginal atresia occurring in

Of twelve cases of vaginal atresia occurring in the premenopause age and due to an inflammatory process ten were those of women who had not borne child en Four of these women were unmarried. In most of the cases the process consisted of a constitution of part or all of the vaginal wall in about

al o pl va part Sulphonaphthol used in too strong

Z region w (C)

Bumm E Virulence Te t and Operatic Mor tality (1 rul nzp of u d Ope t m t lit t) Z t lbl f G) s k 924 xl 994

The m reality of the radical operation for car chroma of the cervix h s been about 10 per cent Most of the deaths were due to streptococcus pera courts. Virulence tests made during the last year a sai 10.100. introitus of the vagina and aroun f the urethral meatus

fl₁ sta

see to to be the

direct result of childbirth injuries. In four there were ext i e cars which caused partial afresia and were themselves ten fer. In three the cervix was beneath the mucous membrane. In five the devel p ment was submucous. Only once was the growth

Subscrous

The turnor cons ted chefiv of muscle cells in

W 1 Berry

(li w Pe itoneal Fissu es of the Ut rus (li sur ute 1; rit n b) D rt tion F nk veins

associate i Therefore in every case of premature separation of the placenta the poss bility of peri

Steinhardt B A Clinical and Statistical Report on Sarcoma of the Uterus (E.a. B. t. g. r

Ni k u d Si ui t der C'ra mutter a k m)
Il en kl lich ich 924 xx v 844
In order to invest gate th frequency with which
my omata degenerate into sarcomata the author ma le
a thorough investigation of the cases seen at the
kermauner Clinic in the beriod from yoos to 1023

rest of the cases

agnosi
In cases of interst tral tumors the d agnos s is more

L...

may give the rive
The same facts hold true for the subserous sar

m nus

According to (s ner metast si takes plac

chiefly by a y i th blood stream. In the small

bottom of the mat ral that cam to m croscopi

t d pende tupon the relative i frequency of sarcoma of the certain

succeeding injections is rather generally con sidered a favorable prognostic sign unliss it is excess ve. The author has had several most satisfactory results in cases with very little general reaction.

In any event the general condition is affected for

Its com L n h n h v lded the mos

outcome in puerperal sepsis depends altogether of the power of resistance of the organism and there ro doubt that protein injections greatly increathis power of resistance

three such cases have been reported among the

seem to remain refinatory. Exudates are brought to absorption or clies a citymscribed supportation.

Inastened so that surgical attack is rendered possible. Adhesions are not affect if Gonorrhead infect on of the cervix and gonorrhead foci in the uterhia and rectim usually remain unaffected by the treatment. The e-nust therefore be treated separately to prevent reinfection.

centage of failures must be expected Prote

1

14 a b) ste ectory

nost of the time. She is instructed to wear it at might after she leaves the hospital for from four to

discovered

MISCELLANEOUS

Geithorn G Milk Injections in Gynecology and Obstetrics Am J Ob 1 & Gy 9 4 vis 535

adhesion between two surfaces which can be sep-

atrophy of the menojau e au au ii ii operation. In four cases there was an associated seemle vaginitis. One of the contributing causes of this againties is a perineum so tight that it prevents free dramage of the normal signal secretion. Under usuch circumstances the secretion collects decomposes irritate and makerates the vaginal epithelium und favors infection.

The author found eighteen cases of partial or complete atresia of the cervix. As the condition

gen tal in the e cision of the infiama more of 5 A

A CATH PAT

primiparæ than for vomen undergoing their first HAMMEKE (G) pregnancy in early years

not h Norm land the

hahtu n

niny and thos which there are distinct cardiac lesions which may already have produced signs of decompensation is

The cases studied by the author were 2 210 cases of labor occurr ng at the Giessen Clinic in the period from September 1918 to April 1922 A careful

inaceurate

Of the sixty two women with cardiac lesions who

were treated at the Giessen Cl ic thi ty five had mitral insufficie cy four a in tral stenosis one aortic insuff ci cy and twenty two combined val ular lesions. In seven of these cases the cardiac

five In the e n others interruption of the pr g

nancy vas n es ary The findings show that the association of a cardia i fe t nd pregnancy is not nece sarily unfay rabl E en a decompensated valvular lesson loes n t indic t interruption of the pregnancy

Ehrenfest II Carbohydrate Metabolism During Pregnancy and the Value of Insulin to the Obstetrician 1m J Obst & Gynec 924 vi 1 685

ı,

antagonistic effects of glycogenesis and glycogen olysis proves adequate Seemingly this is accomplished by readier use of another means of preventing a hyperglycamia namely prompt lower

is e pressed in the intake of glucose levulose or starch in amounts which in the non pregnant

of endocrane pancreatic activity. In women in whom pancreatic function before impregnation i only barely sufficient or alghly deficient the necessity for increased carbohydrate intake and the toxic conditions and alteration in endocrine function occurr g during pregnancy may lead to a true diabetes mellitus. The author believes insulin ill pr ctically chminate the d gers from the compli-

cat on of pregnancy by 1 betes FOWARD I CORNELL M D

Misgeld J The Effect of Total Removal of the Uteru and Adnexa on Prog essi e Tuberculosis

Complete removal of the uterus and adnexa in the treatment f progress e tuberculosis associated

OBSTETRICS

PREGNANCY AND ITS COMPLICATIONS

Fink k The Diagnosis of Pregnancy by Biological Methods (D. D. g.c. de Schw g.rs.h.ft. 1 rch b l.g. he Methoden) Mn ch. ned 13 ch h 1024 lert 822

r = rer =

erum of the pregnant woman According to Hueses this is first demonstrable to the fourth month and after that time can be demonstrated constantly However it is not specific for pregnance alone

2 The demonstration of antitry psin formation in the blood In twenty of the author's cases von Graff's improvement of Volhard's procedure was

mations

primipara

Organic injuries due to pregnancy especially injuries of the Lidneys are found more frequently in old than in young primiparae The inc dence of eclampola in the former is 2 12 per cent while in the latter it is only 1 20 per ce t Mi carriages cour h I my T) fec

> xld ng

A Kottman's d'a soreym placental test should make the diagnosis of pregnancy possible

priouparse Premature and early ruptur or the

diagnosis

6 The determination of alimentary glycosuria

Hammeke A Old P lmip ræ (D alt E st geb erend) D s t tion Fr kfo t 924

The term old prim parar is usually applied to women who become pregnant f r the first time after their thirti th year of age. Duri g the tim of the i bor and to p p

112

which was behind the uterus was not recognized

asphya formec ierk

Autopsy showed rupture of a dermoid cyst

In another case carstream section was performed because the child had been perforated and it would have been impossible to deliver it with the tumor by any of the vagana as the tumor was the saxe of a man a head and closely adherent to the surrounding itsues. Total hysterectiomy was necessary because duting the separation of the tumor facal and purilent fluid excapted into the abdominal cavity

success He is inclined to believe that rapidity in an operation is always purchised at the cost of safety On the other hand he ascribes great importance to careful hamostasis the control of spontaneous separation of the placenta in a patent uterus by the injection of drugs to stimulate labor pains and proper suturing

In infected as well as clean cases the suturing should he done in four layers (1) a running retro mucosal muscle suture (1) a parallel deeply placed muscle suture (3) a simple suture of the sero a and

(4) a parallel seroserous suture

Paddork R

The performance of all of the procedures advocated by Fuest makes it impossible to complete the operation in twenty minutes as demanded by Wagner I rolongation of the anaesthesia in evaluasta Fuerts regards as of no importance. In this connection he refers to Stroganoff who even in hiconservative methods recommends it during the

covery resulted

NEUGA TAN (G)
Recent Observations of Certain

lion and using the proper technique

SCHREINER (G)

Fuerst W Transp itoneal Cæsarean Section in Ecl mpsia (7um t p at l ka h tt b Eklamp e) Z 1 lbl f G; k 19 4 l 66

In agreement with Wagner Fuerst has always believed that the best method of eff cting d livery in eclambia with moud cient distation of the soft parts is tran persioneal erv cal caractera section. However, in Wagner's demand for an ab olittle dispendable suture he sees a demand that holds for all operations. Moreo er the rap dity demanded

Pati ological Conditions of the Amnion im J Obst & Gy ec 1924 viii 546

In the routine examination and study of the

amnon or in the amnon near the placents. The lessons thus far examined ranged from 2 = 10 57 mm in diameter. They appear to be situated in the amnotic membrane. They appear to be situated in the amnotic membrane. They are a dity white or cream color. Their sternal surface is elevated to the control of the control in the control of the control in the control to lose its supposed off of the chronin it does not lose its

HOWS

In these 238 cases there were only n ne matern 1 leaths and f ur of these cannot be attributed to the method. The co dit o 5 pre ent were clampia m one serious card ac de mpensation in o e and

us t s e is a chiuse dense granular area which takes the harmtox) in stun deepl). On h gher magnification it is seen to be made up of ting granules and small fibrils. This substance is the re ut of eairnum deposit.

t nt
Ac rdt g to Fuerst these results and c te that
rap dity of operation s n t th factor requisite f r

eg terating I few round cells are seen at the

with pregnancy as recommended by Bumm in 1908 is permissible only under the following conditions

> at vaginal extirpat on only was made CASE 3 An operable cancer in the fourth mouth of pregnancy was treated by the Wertheim proce

dten

In the period from January 1 1008 to January 1

	T I	mo 1 f	Enc ton
Vo of cases Deaths	56 16	8	45 7 377
Patie t benefited	32	57 1	8 17
Codt narrested Condtin n re	3	36	16 35 4 Bock (C)

Burger k. The Complication of Fregnancy ad Labor by Tumors of the Gentralia (De kom pillat n der Shw ng rechaft ud Geburt mot Gent tium ren) Z nt lbl f C, o k 19 4 xl 651

> uterus as well as the large tumor of the adne a were removed at once by laparotomy Uninterrupted

laparotomy In one cas a supravaginal amputation

laparotomy was performed because an ectopic

second mouth | pregnancy As the tumor busis when the tough adherence we seen at edit the cotaminated are of the property of the cocord of the control of the control of the property of the control of the control of the holom and wall Healing was unmerrupted M. arrange occurred on the tenth day but the were no further complications.

Of twenty cases of tumors of the ovaries which were operated upon during pregnanc all went o to terripted re overy Amo g these were five

1

Polak J O and Wolfe S A A Further Study of the Origin of Uterine Bleeding in Tubal Free nancy Am J Obst & Gy c 1924 \ 730

Many cases are operated upon before the ovum dies. In these a decidual reaction is foun I in the tube and uterus

In cases operated upon after the death of the ovum no decidual reaction is found

When the abdomen is opened in cases of unrup utred pregnancy it is not uncommon to find blood escaping from the free end of the tube into the culd esca of Douglas. In some cases in which crossen had caused porosity of the tubal wall the authors found blood escaping through the tubal wall belt no bleeding from the uterus. On the other hand in cases in which they have removed the tube had not seen in which they have removed the tube had a seen in which they have removed the tube had a seen in the properties of the cases in which they have removed the tube had a seen in the properties of the properties

embryo

In the microscopie study of the curetting a

In the majority of cases of tubal abo tion the endometrium shows nothing but a hemorrhagic

LABOR AND ITS COMPLICATIONS

Stigibauer R Brow Presentation in Labor and its Management (Aur F ge der Si r haltung gebu t und hre Beh udlu g) M 1 chr f Geb 1s1

Gy at 9 4 lx 1 205

In the Second Gynecological Clinic of Vienna there were sixty five cases of brow presentation in 72 900 labors

One cause of brow presentation to which little attention has been paid is spasm of the lower seg ment of the uterus In one of the author's cases with nore of the usually mentioned cause of brow bres entation-namely small size of the fe us narro p lvis relaxed soft parts in a multipara—the uterus thich was spastically contracted in its lower seg ment prevented both flexion and deflexion so that the head which might others ie have assume I a face presentati vas pushe i lown deeper in an ifter the administration of u change l position morphine the sp sm was relieved and the labor was t sminated with the aid of internal version an l with normal labor pains

As the prognosis of bro p esentation is con dered unfavorable prophylactic operative measures have been a twocated. In the author's opinion however

Bros erally interfe

gen a ty be

s fered if att mpt with the forceps fail

MEL ARDLS (C)

Kumplioff C Rupture of the Use us Durl 2 the Last Ten Y s (k pl 1 n d | tri n o J hr) D cen t | kf 1 9 4

During the period from 1913 to 1923 rupture of the uterus w a seen ten times in 16 931 labors. Its incidence was therefore 0.258 per cent. The rupture occurred spontanously in nine cases and

remov d

In int 1st tial p egnancy vaginal bleed ng may be lue to the direct entrance of blood f m the tub

margins of the granular material Around the calcified in terial the stroma h s a more dens hvaline appearance the fibrils ar all defined and the nuclei are fever. At either end of the region the normal stroms seems to separate and encapsulate

the material

The epithelium over the area is not constant. The es cans to be a tendency toward p liferation with squamous cell formation. In one case the epithelium appeared normal in another it was degenerating and in another it cells errail

Rict

lesions

to y 4

di turbances in both the maternal and the fet liganism. The conditions responsible for the circulatory disturbances we eliuse nephrits and hydropic conditions. Relatively frequently the hydramion was associated with malformato and twin p egnancy. The condition is of particular importance in cases of single ovum twins.

In only one case did the hydrammon cause phy ical sign necessital g punctur of the uteru in the rem inder the membr n s were ruptur d artificially if they were not ruptured prematurely

opacity is very marked

On microscopic study the primary change are

Pell E T - h - n n In roll f S ven

Fetu 7 Wox Fruech

A woman 35 years of ge g ve birth to a o cm fetus on Nov mber 23 o23 She then exp ne ced period of well b ing dun g which sh re umed h r ho chold dut es. Neither she n r her attending. On

As n cof the hildren in the cas a studied shi wed any sign or symptom of intential path logy ref r

in the lte tu

LL U

Polak J O and Wolfe S A A Further Study of the Origin of Uterine Bleeding in Tubal Preg nancy Am J Obst & Gy c 1924 V11 730 In a few cases in which the bleeding persi ted for a considerable period of time after the ectopic embry o had been removed a cureitage was done. In the curetted tissue nothing was shown except the hemoretage, interval mucosa. Hence the authors believe that uterine involution is slower after intra utering estation. EDWARD L CONNELL WID.

LABOR AND ITS COMPLICATIONS

tube and uterus

In cases operated upon after the death of the

When the abdomen is opened in cases of unruptured pregnancy it is not uncommon to find blood escaping from the free end of the tube into the cul de sac of Douglas In some cases in which

ened and sectioned it and have found the ovum separated from its bed by blood clot there has all as been uterine himmorthage. They therefore conclude that uterine himmorthage is a sign of threatment tubul abortion that many of these cases are operated upon before the abortion is terminated and that accordingly there are islands of decidua in the uterus which must be separated and cast off the uterus which must be separated and cast off the uterus which must be separated and cast off the uterus which must be separated and cast off the uterus which must be separated and cast off the uterus which must be separated and cast off the uterus which is the continued of the separate of the theory.

In the microscopic atudy of the curettings a

en lometrium shows nothing but a hymorrhagic

tion and this absence of decidu I reaction is an e idence of fetal death

Therefore it is safe to state that vaginal bleeding in the early pha e of ectopic pregnancy follows the death of the ovum The bleeding proceed in this

removed

In interstitial pregnancy vag nal ble d g may be due to the d rect e trance of blood from the tube 70 P P

In the Second Gynecological Clinic of Vienna there were sixty five cases of brow presentation in

, ',,

One cause of brow presentat on to which little

pel relaxed soft parts in a multipara—the uteru which was spasticilly contracted in its lover segment prevented both flexion and deflexion so that the head which mght otherus; have assumed a face presentation was pushed down deeper in a unchanged position. After the alimit tration of membraned use the state of the segment of the originated with the second of the second of the membraned to the head of internal version and with normal labor past of the second of the second of the normal labor past of the second of the second of the normal labor past of the second of the normal labor past of the second of the se

ts the prognost of brow presentation is considered at fa o bl n onb !

MET ARDLS (G)

Kumplioff C Rupture of the Uterus During the
Last T n lears (R tlu ut i nd n l tain o
j br) D set u F ki ri 19 4

During the period fr m 1913 to 1923 rupture of the uterus was seen ten times in 16 921 labor — Its incidence was therefore 0.058 per cent. The rup ture occurred spontaneously in nine cases and in one case yas I rought about by moroner inter

In nine cases mechanical factors were responsible

Total hysterectomy was done in nine cases. In

multiparm Only three were under 30 years of age Two were between 30 and 35 years and five were older than 35 years In sour cases the patient was brought to the clinic after the rupture had taken place in all of the rest the rupture occurred in the

chaic. Seven of the women were discharged as cured Of

was therefore 33 per cent

In all of the cases of spontaneous rupture the fetus was dead. In four it entered the peritoneal cavity Cranioplasty with delivery of the child through the natural passages was done four tim s In two cases the child was extracted through the KUMPILO P (G) ruptured uterine wall

PUERPERIUM AND ITS COMPLICATIONS

lies

(at r per cent) the femoral vent in ten (s 6 per cent) privie and fernoral veins in three (1 65 per cent) and the saphenous and femoral veins in three (1 65 per eent)

Fifty three (9 5 per cent) of the women were primipara and 127 (70 5 per cent) were multipara Var ces were present before delivery n 133 cases I ver occurred in twelve cases all with some com phe tion. In only eight could it be attributed to infection in the rem inder it was due to mech mical

fact rs Only one case was associated with an infectious d seas

Eighty two of the thromboses occu red on the right side and seventy two on the left side. In twenty six cases the condition was bilateral One patient ded from pulmonary embolism. The rest

e d scharged cu ed or benefited

MISCELLANEOUS

Falt

f Sedi

The author report the results of m re than 1 000 determination of the ate of sedimentation of the erythrocytes in pregnancy during labor during the puerperium and in gonecological diseases. The Westergreen technique was employed.

During the first three months of pregnancy no uniform acceleration was noted. With the advance of pregnancy there occurred a step like acceleration but the differences in the rates determined in the same period were market.

the the disease Recurrences are indicated very early
The by acceleration of sedimentation Bock (G)

Bauer J Is There a Constitutional Fred sposition
Tows of the Reproduction of a Preponderating
Number of Descendants of the Same Sex? (Gb
ekonstitution II \(\forall \) nlaguagaruz Zeugung to
\(\delta \text{ch} \text{ mm n } \quad \text{ ug we se eines } G \text{ shechtes?}\)
AI Wehneh 1924 11 928

r. - -

labor persisted for from eight to ten days. The

smali I

rhage It usually showed marked acceleration also in cases of address inflammation but remained normal in such cases when no virulent bacteria were present

In contrast to I incenmener the author behaves that the sedimentation est should be used only with the greatest care in the differential diagnosis between ectopic pregnancy and adnexal tumors

GENITO-URINARY SURGERY

ADRENAL KIDNEY AND PRETER

Olbrycht J and Ramult M. Changes in the Adrenals in Anaphylaxis and Foll wing the Parenteral Administration of Albumin (\) ben n rens r de a gen be Anophyl te und p ren t ler Eiwe s ufuh) Med Dosw aderaln 2 spo lec 1 024 11 14

in pure paraff n at a temperature of 52 decrees. The stams used were hamatovylin eos n methylene blue saframin and Van Gies n s stain

animals e amined were the hyperem and e tra vasation of blood. The hypergenia affected the entire gl nd but particula ly the medullary substance

Ma tin C L Rog s F T and Fisher N F Th Effect of the Roentgen Rays on the Ad n l Giand im J Rot iz 1 1924 Irrad at n like other potent therapeutic meas

20 230 SM

some were examined unstained for I poids by means m a ne

tures

Not all of the evidence is of an experimental I net d case with ·

Four large dogs were selected and operated upon in the manner described. None of them showed any ill effects from this preliminary procedure.

abdomen and special retractors were inserted to n ad

dose is one that produces marked cachesia and death when applied to an isolated loop of intestine. The exposed area was carrellily observed before the removal of the tube stand to make certa a that no intestinal loops had slipped under the end of the cone. The incision was then closed

The authors state that there may be some criticism it he roenigen ray dosage used in these experiments but if it can be shown that a dose that destroys intestinal mucosa does not produce serious swmp toms when it is applied to the adrenals the p otec tion of these gland will play a minor rôle in deep theram.

The author ummarize the rarticle as follows

Direct his avy radiation of the isolated left
drenal adminitered following the removal of the

Nicl is B II Some Anomali s of the kidney $Am \ J \ Ro \ Ig \ I \ 9 \ 4 \ xi \ 43r$

Anomalies of the kidney are classified roughly by hichol as () anomalies of number wh h include c agent i solitary kidneys co gental atrophy fue d kidney and duplex k dneys (2) anomalies of position which include ectoric and m placed kid

Congenital atrophy or hypoplasia of the kidney is a result of arrested development. Therefore this type of anomalous kidney shows considerable variation in Size.

The diagnosis of congenital atrophied kidney

Fused kidneys may assume a number of different forms. The most common is the horseshoe

hadney
The discovery of a horseshoe kidney in the presence of some other pathological renal condition such as tuberculosis is very important as the presence of a horseshoe kidney makes nephrectomy impossible and its discovery may often spare the patient an exploratory operation

result of arrest of development may have an unde veloped pelvis and may be confused with a true ectopic kidney. In cases of kidneys which are anomalous in position pyelograms usually reveal the type of the anomaly

Repail torsion may be either acquired or congenital. When the ascent is interrupted rotation ceases leaving the kidney pelvis in its original antenor position where it is so often seen in cases of repail torsion.

Polycystic kidney is rare. It is characterized by many cystic areas some large and some microscopic missic which are located for the most part at the renal parenchyma. The outline of the polycystic kidney is usually irregular the irregularities corresponding to the cystic areas. Pyclography reveals a kidney.

always pathognomonic of polycystic kidn y

Lorie G. one M.D.

RATHELN reports three cases of surreral horseshoe

L Clinical A nee

White II P W The Clinical Features and Diag nosi of Hydronephrosi B i M J 1924

The author deals with the pelvic type of hydro need rosts which is kn wn also as the intermittent or congenital type. This occurs mor freq nily in the third d cade of I fe and twice as often in the feet of the multiple of the most of the multiple of the

patient recovered without the development of a sinus. In apit of excellent cystoscopic work a preoperature diagnosis of horseshoe kidney was not made

Both Rathiun and Hess emphasize the importance of py clograms in genito urinary d agnosi O cas F Napew M D

off n ! Dieased bidn y

distended pelvis Infection may complicate the

The author's experiments on pupp es have sh wa

Horde St T Spilsb y St B Forbes A G and W ber F P A Discus ion on I olycysti Disease of the kidn ys P c R y S M d L d 9 4 1 Se 1 U I 65

Thre cases of polycyst c d ease of th 1 dness under object attorn in 5t Bartholomews hospital a counter T o of the patients were me 43 The course of the di ase is slow. The patients are subject to intercurrent tubal nephritis and when the disease affects both kidneys as seems usually the case eventually die of urama. If the cysts affect only on kidney and this organ is removed the patient may live in a fair state of health for

i h white specks or streaks. These are due to the deposit of lime salts or to lipoid degeneration a condition known as myel'n kidney.

Lime deposits in the kidney occur in diseases associated with the ab orption of bone and bone

tumor is causing serious symptoms and the other kidney shows so I tile enlargement that even if it is affected the condition will not advance to the unemic stage for several years

The author has not come across the fam hal factor said to be present in some cases nor has he seen associated congenital defects such as hypospadias harelin etc

SPILSBURY reported the cases of three males be tween 47 and 53 years of age. One d. d. of cerebral harmorthage and two from uramia Of special interest in the postmortem examination was the chow In sections thi substance assumes a brown in pink color when stained with Sudan III and is doubly refracting to polarized light. While it is frequently deposited in amounts which do not

alter the gross appearance of the kidney the term mychn kidney is appl cable only when it occurs in amounts sufficient to give the characteristic appearance easily recognized without the micro scope. The deposit occurs theily in the interstitial tissue. The cells present a foamy cytoplasm and resemble vandhom a cells.

The two satients whose cases are reported by the author presented the picture of chronic interstitial nephritis and died of uramia. Myelin kidney is generally found in old nephritic cases with mixed

fibrou capsule Some of them were connected with the portal area and many of these areas contained multiple bile ducts

The kidneys showed the u ual picture. In all cases the suprar and glands and the cottex especially were hypertroph ed. The structure and distribution of the renal cysts lend support to the view that the cystic condition is congenital and due to part alfalure in

ker tors ker I of that the

which have u dergone gradual distention by the screttion. The failure in the renal function is due to the second my development of nephritis in kidneys all eady of pplied by cystic discussed.

In ome cases cystic di case of the h er : asso ated with that of the kidneys The congenital

Mathe C P Carbuncle of the K dney Cal f

23 Nc

ı

Weber F P Lipoid Speckling of the Renal Cortex—the So-called Vij lin kldn v P & R j
Soc 3l d Lo d 94 | Sect L | 61

At autops, the cortex of the L dney is som times found in ried by minute opaque whitish or yellow

to ted. The finding of the blood examination are harmoglobin to per cent er-throcytes 3 664,000 feucocytes 18 too polymorphonuclear leucocytes 22 per cent small mononuclear lymphocytes 20 pr cent and large mononuclear lymphocytes 8 per cent The blood culture should staphylococcu

series which received only a single injection of the corresponding dose. In order to determine the duration of the renal damage three rabb is were injected as in the second

nermanent

i

tuung ep ti au A

As repeated injections do not cause any added

the ureter

The usual curved linear lumbar incision for nephrectomy was made on the right side. When

Hunt V C Perinephritic Abscess J Am M 411

The author prefers a classification on an etiological basis to the accepted classification because the series

Hill J H and Bidgood C \ The iffect of Intrav nous Injection of Mer urochrome on the kidneys B H Johns H pt Ho p B it 2024 XXX 409

mm f h ersvenous inject on

A second experiment was done to determine

s after reater e first The diagnosis may be confused by the onset of

cases of cortical abscess and abscess secondary to

a secondary vasotomy may be performed at the end of from four to six weeks

A complete record of each dog operated upon is appended at the end of the article

The author draws the following conclusions I Mercurochrome is not a safe antiseptic for vasotomy becau e it is an intense irritant to the vas and in the majority of cases produces permanent

abscess

one death

Eleven case records of metastatic abscess are cited and tabulated 'The original infect on was usually of the furuncle type but in one case was in the tonsil Drainage was sufficient except in one case in which nephrectomy was necessary There was

GENITAL ORGANS

R Inick, H C Experimental Studies on the Vas Deferens J U 1 024

deferens caused by the injection of various anti-

To determine the permanency of injury to the vas

lining of the vas each was u ed in greater concentra

tion than their therapeut e stre gth The study indicates that all of the anti-eptics used 1 jured the vas to some extent some producing ma ked destruction and others causing only slight

rr tat on Rolnick is of the opinion that vasotomy with injection of the seminal vesicles should be tried when repeated massage does not bring about the des red results When surgical drainage or removal of the

Dogs were used for experiments because f the easy access to the vas deferens The usual technique

according to the drug used A great many photo graphs and microphotogr phs show cle ly the po nts emphasized

Roln ck warns against the establ shment of a fistula to pe m t daily irrigation. In his experence this causes a pe manent occlusion. When nece ary

strength

2 Collargol occludes often enough so that it should be employed with eaution or be substituted by chlora enc

3 Chlorazene in a solution of from 1 1 000 to 1 400 can be employed a thout fear of permanent GILBURT I THOMAS M D occlu on as a sequel

MISCELLANEOUS

Helmholz II F and Millian F An Eaperl mental Study of Therapeutic P ocedures in Pyci cystitis A J D s Ckid 9 4 71

These studies were undertaken because the results of treatment of pyelocystiti are still far from satis

The use of alkalies in infections of the bladder in rabbits. Eleven rabbits were injected intra-

fortunately two of the five rabbits died from inter current infections so that only three were available for study Three of the six control rabbits did not

infection

2 The pyrogenetic action of the filtrates of colon bacula. Several series of experiments were done rabbits being injected with the filtrates of colon bacillus cultures grown in acid and alkaline broths In almost every instance the injection was followed first by a rise in the temperature and then by a drop Little d fference was manifest between the results of the 1 jection of the filtrates but if a subnormal temperature is taken as a criterion the alkal ne broth filtrate was more toxic than a similar acid filtrate Filtrates of colon cultures grown in

exper ments to determine the effect of a rapid change

faint

CTE n of ecov

th urcter

aureus Chemical analysis of the blood revealed urea nitrogen 12 5 mgm non prote n nitrogen 23 7 mgm and creatinine 16 mgm per 100 c.cm A catheterized specimen of urine showed no acid fast

The usual curved linear lumbar increase for nephrectomy was made on the right side. When

corr spond ng dose In ord r to determine the duration of the renal

series which received only a single injection of the

damage three rabbits were injected as in the second series but were not killed until two months after the

permanent

tooms epinen n b tago to ma D 1 causes definit damage

C D Ho sees M D Hunt V C Perineph Itie Abscess J Am M 4s

9 4 bxxx 2 70

tass along lymphatic and vascular p thways

strabl and by the tenge cy t atu l supple drainage

The incidence of involvement of the right and left kidneys was about the same but the lesion wa almost twice as common in males as in females The one ca e of bilateral abscess a reported in detail

change and do es of 10 mgm caused def the hidney injury

Itili J II and Bidgo d C 1 The Effect of Intravenous Injection of Me curoci come on the Kidneys B # Jol II pk Hosp Balt

1024 XXXV 409

renal irritation

A second experiment vas done to d termine whether any added damag results from repeated injections Twelve injections ach of 1 25 and 5

In their own cases the patient is given larg do es of sodium bicarbonate by mouth or by Murphy drip forty eight hours before the operation and I oz of castor oil at noon of the day before operation One hour before the operat on 18 gr of morphine in

m nistered The rationt is placed on his abdomen on the

in the canal

I'r m 30 to 60 c cm of a 2 per cent plain novo

tatectomy. In this procedur, the inter land external spht cters are uninjured and the verumontanum and ejaculatory ducts are preserved. The pro-tatic capsule is packed with gauze for eighteen hours The bladder 1 dra ned by a large catheter in the urethra The levator and a brought togeth r with one catgut statch and the skin sutur d wath salk w rm gut Umost no ether is neces ary

average r turn in two hours from the intravenouinjection of phenolphthalein as 32 per cent In 88 per cent of the cases suprapubic dramage was

The average blood urea retention was 2 4 mgm per 100 c cm. The average time required for the operation as tventy to minute. The hamor rhage vas much less than vhen anæsthesia is in duced by inhalation The anæsthesia persisted for from six to eight bours after the operation and reduced the operative shock. The perineal tube was rem ved after thre days The patient was usually sitting up on the fourth day I artial control of

I here were tour deaths and one case of sever shock One de th was du to embolus one to shock and

be imployed in any case

BE I MIN F ROLLER M D

in reaction on the growth of the colon bacillus revealed that the growth of the colon baculus tended to make alkaline media acid and acid media more acid in the presence of sugar in sugar free broth the h lin em din

> necessary One patient went into a da g rous coi lapse after the injection of 30 c.cm of 1 per cent

The dosage was increased up to a point at which gastro intestinal symptoms were produced. Al though the number of cas s is too small to warrant definite conclusions it can be said that with an alkabne unne the largest tolerated dose of acre To or its

> moots wn u

patienta were unable to remain for o et a 11 in one case the treatment failed definitely Large do ea of urotropin can be given only when large

Spinal anaesthesia is indicated for all genitourinary operations belos the umbilical region at any age in patients with a high blood pressure and with eso story his sees. It is ront a indicated in the

For ration ration were tempe e fav

COD

anæsthesia as 1 bli tate and

imm diately to preserve a terral te sa thesia sufficient for operation tasts for from sixty to ninety minutes

The author strongly advocates spinal anaesthesia as a routine for surgery below the costal margin BE JANN F ROLLE M D

Lowst y O S and Rog rs H E One Hundred nd Serenteen Gons cuti M jor Urological Operation Performed und r Regi nal Anæs th 1 J t 1 0 4 x 543

o th t as nearly every disease efi

> ed 13

Stirling W. C. Intradural Anaesthe t in Genito Urinary Surg ty J Lr 1 1924 From a series of 16S cases the author concl des

that the objections to intra lurat a wathes a are ;

SURGERY OF THE BOXES JOINTS MESSELS TEMBORS

curvature of the spine is common this may be diffcult to attain. The stereoscopic shift should be vertical and not across the pelvis

6 Roentgenograms made improperly are often

A Is 11

Noble T P Pseudocoxalgla J Bone & J: 1 S rg

Pseudocoxalgia was first described by Legg The term pseudocoxalgia originated with Calvé

Darling B C The Sacro Iliac J Int Its Biagno is as Determined by the Y Ray R d logy 9 4 1 436

Another characteristic type is the sclerosed type

which presents a central mass of increased density

at the end of the shaft The entire bone is smooked. The periosteal type appears to invoke only one side of the bone and is apparently unable to form bone. Central tumors may resemble cysts. Occasionally

regular

This article is hunted to the consideration of what is variously called sacrodize dislocation sublication relaxation separation of sprain resulting from traumatic injury or biting. The great frequency with which this condition is credited with cassing dashity in industrial cases makes its defanit visualization in the roentgenogram of considerable importance. In spite of numerous attempts with

changed The st

The stage of recalcification and degeneration lasts from two to five years. In this stage the symptoms are less marked. The hime salts return an i the clear zones disappear. The neck continues to thicken while the head becomes enlarged flattened and displaced.

The moulding of the head continues until adult life is attained ending either in an oval or round head

4 O ly when there 1 actual separation of the pelvic gi dl such as complete fracture with dis

In the author's opinion the most satisfactory treatment is slight abduction with a spica cast for six months followed by massage and muscle train

th dis

mg

Sacro that and lumbosacral spra as seem more likely to be the cause than demonstrable relaxations or subluxations

SURGERY OF THE BONES JOINTS, MUSCLES, TENDONS

CONDITIONS OF THE BONES JOINTS

Hend rson M S and Simon II E Brodi a

ends of the long bones was evid nt Th authors

and the joungest 11 years. The average age was 21 5 years. The duration of the symptoms ranged from of sev.

the C

volvement of the lower end of the femur gave a history of partial locking of the knee which occurred six or seven times during the preceding year. Al

In practically all OI II CLESS HE OLD LOC condition was associated with intermittent pain. This was mild at first but worse at night and gradually became constant and more severe. In all cases there was enlargement of the end of the bone. In six has no more than a moder to trauma

The following conclusions are drawn r The symptoms of Brodie's abscess are character me and may be explained on a pathological basis

low 8 000

Bacteriological studies were carried out in eight

cure in the majority of cases. Occasionally no se there may be a recurrence

Mey ding If W Roentgenographic Types f Sarcom of the Long B nes Red 1 47 924

The author tates that by correlat n of the ro t h h st rv and the clin

The author believes that synoxectomy should be limited to joints in which the synoyial membrane alone or with the cartilages has been irreparably

or third day after operation A Thomas spilling at the time is supplied immediately after the operation. This is suspended from an overhead frame Active motion is added by pulles under the control of the patients hand. Flexon contractures are prevented in this way. Physiotherapy consisting of baking and mass age on about the second or operation of the carry term of function with the properties of the carry term of function with many in the properties of the carry term of function with mag is begun at about the enl of the third week.

Daint II Lixivipian M II Lixivipian M III.

years In another improvement is note I but there is still some pain with limitation of motion. In the

FRACTURES AND DISLOCATIONS

plete d struct on of the synovial m mbrane cro son of all of the articular eartilages and destruction of the semilunar cart lag s and cruci I lig ments all of Welch J S The Reduction and Control of Unmanageable Fractures by Means f a Metal Pry Pin S 1 Gy & GObii 924 x 822 A smill blunt steel pun of a size dej on ling on the thekness of the extremity the size of the bone an l

the semijunar cart lag s and crue; I lig ments all of the contents of the knee joint were removed and the rather than the content of the knee joint were removed and the ı ried I he than

years. In one case of osteochondrom to is recur rent after operation el. there there wa mot on of

break when extreme force is applied. One side may have teeth to ass at in maintaining apposition

80 degrees with good stability after synovectomy of both anterior and posterior comp riments ith re

Under surgueal oserous the pan is directed into potion and core et apposition of the fragments is determined with the sil of the fluoro cope. Surgical anæsthesis is essential until the reduction is complete and the plaster dressing is on with the pin in his incorporated ni. If their from the days to two weeks there is sufficient callus to retain the duced fragments in position. A go-degree rotation freshtates removal of the pin. In many cases the representation of the pin in many cases the resultance of the pin in many cases the resultance in the fragment ends are sufficiently irregulate or the pin their reduced prostion.

e i o e i b) block its retion the miliona cartilages and eru ial 1g ments be ng includ i if necessary. It is u u ily not ne s arv to clean o t the posterior comp timent. A tourniquet s essential

The use of the try pin is limited to larg bone with strong contracting mu cles cases in which soft issues inter ene bet een the fragments and e s sin which large c sels rever; near the site of fracture. O ere posure to the \text{ray must be a odd!} Dayle II Is THE MID.

The postoperation treatment consists of a two mot not there a list time possible functions to discount the second

1

.

the o

0	INTERNATIONAL	ABSTRACT	O F	SURGERY
	SURGERY OF THE BONES JOINTS	_		

MUSCLES TENDONS ETC

Magnus G The Fate of Fat Interposed in Arrhro plasty (D s Sch ck 1 des nte po erten Fettes b i der A th opla t k) B i z ki n Ck 1924 c i

arthritis deformane?

23

-

In experiments on animals it was found that I v

pl t ly destroyed and then replaced first by young connective tissue an I ultimately by callus \o new

the resection of a joint Arthritis deformans is not unusual. The process of transformation is still in progress after four and a half years

Smith S A The Operative Treatment of kn e Flesion in Polioms litis B 1 M J 1924 1092 Within the last three years Sm th has treated fourteen cases of flexion deformity of the knees pool teal nerve is freed from the inner s rface of the biceps muscle at the point of sect on f the l tter

the entere mass ancluding ves els and nerves is

S C W LDE BE Speed J S Syno etomy of the Kn Joint J

A MAS 94 lx While 3n ect my dates back to V lkmann's specific antibodies may be influenced secondarily by non specific or heterologous effects

As shown by ammunity reactions in vitro the

venous stasss. The present methods of inducing anæsthesia preceded by a preliminary injection of morphine tend to slow the circulation Preliminary

loss of antigenic values Samuel Kany M D

TYMPH VESSELS AND GLANDS - v --

vented

CYRIL J GLASPEL M D

BLOOD TRANSFUSION

O Brien R A II rtley P Mackie T J and Others Discussion on Immunity Bri W J 19 4 1095

theria in the original immunological sense and quinine is a specific for malaria in the second sense in which the word is used. Non specific treatment is exemplified by the use of injections of milk or

The authors attempted to form a permanent fistula of the thoracic duct in dogs in or ler to study over a con iderable length of time the resorption occurring through the duct. The four following methods were used

The duct was mobilized ligated near the venous angle severed and then sutured into the skin When this was done the secretion soon

ceased

2 The duct was ligated and incised proximal to the ligature and a skin canal was formed to the in cision. A mixture of lymph and wound secretion. was discharged

3 The maom nate and internal jugular veins ere ligated near the juncture of the subclavian

I & 45 I it only the duet remained and it was therefore possible to collect

> 1s ex duct

which tissue resista ce sincrea 'd the d v I pment of an acquired specific immunity o the utput f The

BODE (2)

SURGERY OF THE BLOOD AND LYMPH SYSTEMS

BLOOD VESSELS

Reich t F L An Experiment I Study of th Anast m tic Cl cul ti n in th Dog B II Joh s II pk s Hesp B R 1924 x x 385 is the administration of stimulants. Card c stimulation is useless and even harmful. Inste d an attempt should be made to relieve the pressure.

veins of injection vent cava i ele is the p i

collateral channels are not vasa v sorum but

SQUEL KARN M D

Lockha t Mummery P Postoperative Pul monary Embolism B il Jl 19 4 i 85 Pulmonary embol sm occurs mo t frequently

develops most frequently on the eighth or minth day after operation but it may occur as early as at the end of twenty four hours or as late as after eight vecks

The most dangerous period during pulmonary embolism is the first few moutes. If the patient survives for ten minutes he usually recovers if secondary pneumonia does not supervene

Cases of pulmonary embolism may be a vided into three elsases (1) those in which death occurs instantaneously (2) those in which death occurs instantaneously (2) those in which death occurs after a few munites or hours I llowing an acute and sudden ert is characterized by dyspnox and pain in the chest and (3) those in which after an acute cris the signs of pulmonary consolidat on appear but the patient recovers

of adults

result in cerebral embolism

venous stasis. The present methods of inducing anasthesia preceded by a preliminary injection of morphine tend to slov the circulation Preliminary specific antibodies may be influenced secondarily by non specific or heterologous effects

As shown by immunity reactions in vitro the antigenic values of detoxicated and defatted vaccines are in no way comparable with those of the ordinary beat killed bacillary emul ions in saline. It therefore seems evident that the physical and chemical processes involved in the preparation of detoxicated and defatted vaccines are responsible for the marked loss of antigenic values SAMUEL KAHN M D

LYMPH VESSELS AND GLANDS

shock and prolonged anæsthesia should be pre-CYRIL J GLAS EL M D vented

BLOOD TRANSFUSION

O B ten R A Harrley P Mackle T J and Others Discussion on Immunity Br t W J 1024 11 1005

theria in the original immunological sense and quinine is a specific for malaria in the second sense in which the word is used. Non specific treatment is exempl fied by the use of injections of milk or

non specific proteins activates gr ups of d fen is ledy II *

which tissue res stance i incr a ed th de clopm at of an acquired specific immunity of the output of

The authors attempted to form a permanent fistula of the thoracic duct in dogs in order to study over a considerable length of time the resorption occurring through the duct. The four following methods were used

The duct was mobilized ligated near the enou angle severed and then sutured into the ceased

2 The duct was ligated and incised proximal to the ligature and a skin canal was formed to the in cision. A mixture of lymph and wound secretion

was discharged 3 The innominate and internal jugular veins

were heated near the juncture of the subclavian

its secretion separately

as ex e duct

The

BODE (Z)

SURGERY OF THE BLOOD AND LYMPH SYSTEMS

BLOOD VESSELS

Reichert F L An E periment I Study of the Anastomotic Circulation in the Dog B II J h s II phins II o p P It 9.4 xxxv 385 is the administration of stimulants Cardiac stimu lati n is usele s and even harmful Inste d an

SAMUEL KAIN M D

Lockhart Mummery P Postoperative Pul monary Embolism Br l M J 924 1 85

Pulmonary embolism occurs most frequently following operations. It is fatal in one case in t n

after operation but it may occur as early as at the end of twenty four hours or as late as after eight weeks

The most dangerous period during pulmonary embolism is the first few minutes. If the patient survives for ten minutes he usually recovers if

after a few minutes or hours following an acute and sudden crisis characterized by dyspinox and pais in the chest and (3) those in which after an acute crisis the signs of pulmonary consolidation appear

but the patient recovers
In the author's opinion instantaneous death must

of dults

S psis piays a secondary part in the causatio of embolism. The majority of cases of pulmonary embolism are clean cases. If the conditions were

result in cerebral embolism

ı

requires the presence of a substance can a turom

there must b ven us sta is and the prese ce in the

332

333

specific antibod es may be influenced secondarily by
non specific or heterologous effects
As shown by annuality reactions in vitro the

anæsthesia preceded by a preliminary injection of morphine tend to slow the circulation. Preliminary

loss of antigenic values SAMUEL KARN M D

LYMPH VESSELS AND GLANDS

vented

bot cells

CYRIL J GLASPEL M D

BLOOD TRANSFUSION

O Brien R A Ha tley P Mackie T J and Othe a Discussion on immunity B it if J 1934 in 1995

In the immunological field, the word—specificity indicates adjustment of the remedy to the infecting

theria in the original immunological ense and quamie; a specific for malaria in the secon! s nose in which the word is used. Nos specific treatment is exemplified by the use of injections of milk or The authors attempted to form a permanent fixtula of the thorace duct in dogs in order to study over a considerable length of time the resorption occurring through the duct The four following methods were used

1. The duct was mobilized ligated near the

venous angle se ered and then sutured into the skin. When this was done the secretion soon c ased 2. The duct was I gated and incised proximal to the ligature and a skin canal was formed to the incion. A mixture of lymph and wound secretion

non specific proteins activat s g oups of d f iv

ts secretion separat ly

as ex e duct The

BODE (Z)

SURGICAL TECHNIOUR

OPERATIVE SURGERY AND TECHNIQUE POSTOPERATIVE TREATMENT

a v

Voluntary micturition was re established within twenty four hours after the one at on in forty four (50 4 per cent) of the t eat d c ses and in sixty-one (60 3 per cent) of those not treated In a study of the relation b tween postoperative

d tention emesis and delay of voluntary meturi t on no definite difference was found between the treated and untreated groups

For want of controls it was impossible in this part cular investigation to substant ate clinically

Martzloff briefly reviews the I teratu e on the use

of es rine and strychnine The study reported in this art cle was made on 162 cases from one twelve bed ward on the gyne cological service of the Johns Hopkins Ho mital at

Baltimore All of the patients had been subjected to a major abdominal of eration under eth r angesthesia. Accords g to the typ of operation performed the cases were di ided into seven groups as foll us seventy six in which the uterus and the adnexa from on or both si less ere removed twenty sir in a hich

th study concerning the comparative no toperative cours of treated and untreated cases in which operative shock from hæmorrhage was a compli cation

Of th untr ated patients who suffered from d s t ntson 818 per cent developed this complicat n within twenty four hours after the operati n while of those who were treat d 61 7 per cent we e so However there appears to b a more marked tendency f distention to divelop b th early rafter operate n and at a mor r mote t m in tr at I patients th n in those n t treated

Eme is occur ed as a complication in the majority of the patients so afflicted dur g the first four h s

off roperation No definite ffeet upon th blood p essu e coul !

rum val of one ovary seve teen of subacute sal

suspension of the uterus was performed Lach group of patients was tabulated and studied separately

distention. The du ation of the distent on tot li d 776 hours or an averag of 22 8 hours for each patient Of the patients who did not rec ive the pro-

phylact c t eatment vith ese me and strychnine eleven (12 5 p r cent) d vel ped postoperat v d tention totalling 147 hours n average of 13 4 hou s freach patie t

rr + per c nt

phytact car y

In conclus on the uthor states that he ha been u abl to demonst ate any be fit to be deriv l

from th p tope tive use f serin and strych ne as d scr b d in abd m l ope tions n the pelv c v cera

n rat e lunt ry ppear d ed pro han n

those not s tre ted Therefore this t eatment ha been abandoned n th gy ec l g cal serv e of the Joh s Hopkin Ho pital

CARL R STEINER M D

ANTISEPTIC SURGERY TREATMENT OF WOUNDS AND INFECTIONS

Eisenberg C Experience with Ri and to Date
(Un bi heng n E f brungen mt Ri and)

Z tr lbl f Gy k 1924 xl 1 2 3

Even with the intravenous administration of rivanol the author has been unable to obtain any very definite results in septic conditions. In severe general sepais the treatment proved useless. He is of the opinion he ever that the use of rivanol and

after operation in an infected r gion. Among the cases in which it was used locally was a case of pleural emplyema in an infant which was cure?

Dynory (6)

ANÆSTHESIA

Bckm nf On h e.

924

In the research work reported the author under took to letermine a hether ether-oil anæsthesia can le con ertel into ether-oil analg sia by the action of magnesium sulphate a hether any lit terious eff cts are inrectly attributal to that lrug and whether the toxicity of the anæsthetic can be lessened without too greatly decreasing its synergi tic effect upon the morphine

cent respectively was slowly introduced into the rectum. It was found that 1 oz of the mixture per

1

po toperative condition poor

The author believes that his reduction in the amount of ether used may have been too radical but no evidence was found in favor of the alleged

undes rable effects of the magnesium sulphate with out lessening any synergistic effect it may be found to have upon morphine

Gre or R Mclearr MD

PHYSICOCHEMICAL METHODS IN SURGERY

M :

ROENTGENOLOGY

technique the F ench erythema dose represents a exposure equivalent of 4 000 R

Because of the possibility of variation between the French and the German crythema dose the

monary affections

the measurements there. The ervihema dosages mea ured t ere those actually used t treatment For the two machines in use and tested they were found to represent 1 437 and 1 400 R units re pectively It was thus found that the Fre ch ervthems dose is approximately three times that of the German erythema dose used by Holf Ider ADOLP I HARTUNG MID

views demonstrate a shadow against the most dependent portion of the costal arches. In many cases this method has been the only means of arriving at a positive diagnosis. The advantages

1 to L

kapian I I A Comparison Betw a the French and tile German Erythema Dose as Measured on the Solomon fontoquantim t Am J Roenizenol 1024 XII 454

vary widely Attempts made to date to standardize them have not been successful. The so calle !

Erythema doses as given by different op rators

Wood F C The Eff ct on Tumors or Diff ent Wa e Length A O 4 X t 474

Wood exposed very thin particles of animal tumors including mouse tumor

end totalling 14 out a scar

were used for each time interval to counterbalance the ind vidual susceptibility of the cells to radiation

The voltages selected were 30 000 and 100 000 olts and the measurements were made by an open

ionization chamber About 1 700 inoculations were made

It was found that when equal quantities of radia too were used whether they were produced at 30 000 volts (long wave length) or at 100 000 volts (medium length) the cells were all killed after practically the same length of time

CRARLES II HEACOCK M D

Carman R D and Miller A Occupational Hazarda of the Radiologist with Special Reference to Glanges in the Blood R d l gy 1924

It was soon learned in the practice of radiology

lowing statements

T Rad um and the \rays produce biological effects which are seentially alike

2 According to the amount of irralization and the range these effects vary from atimulation to destruction. There is some question however in

radiation

other unfa o 11 d

r gardless of the raggregate amount are uni kely to

6 The cumulati e effect of radiation which the ra hologist guards against so zealously in therapy c not be ignored in estimating the chances of injury to himself

7 By analogy it may be reasoned that rad ant energy like certain drugs may set up an increase of cellular resistance. There is evidence also that an opposite condition anaphylaxis may develop

8 Radiologi ts cannot be shelded completely from irradiation while pursu g their vocation

The reaction of the medical profession to the

of work should have a reserve personnel to permit

An extensive bibliography is given RADIUM

Levin I and Le ine M The Action of Radium on Plant and Animal Tissues J Am M Ars

This article deals with the experimental data obtained from it e use of bare unfilter d glass tubes from 1 to 5 mm long and 0.25 mm in diameter which contained from 0.2 to 0.7 mc of radium emanation. The authors explain that rad um emanation is a heavy gas which is the first distinct.

For experiments on normal animal tissues the spleen 1 ver and bone marrow of rabbits and the muscle and testes of white mice and rats were used

in animal tissues connective tissue predominated with occasional i lands of encapsulated or degen

nse of the beta rays
Further work on the action of the beta r ys s
urged A James Laren MD

MISCELLANEOUS

then a zone showing degenerative processes in the cells and beyond this a zone of normal ussue. In the animal tissues from six to ght we la were rounced for the complete action. In the neophesms

the irradiation was continued for hours and repeated over a period of months. Three cases treated in the manner are reported briefly.

MISCELLANEOUS

are not practical

CLINICAL ENTITIES—GENERAL PHYSIO LOGICAL CONDITIONS

fors h 924 xxx 337

The author reports an experiment in which are tubes was feed cholestern and painted alternally with raw printly out at and B naphthol during a period of itselve months. The animal developed a carcinom of the car and neck. In the area of the metal mirks on the car large fibromats were forme! The carcinoma of the car developed from the based on of these fibromats. Gasar foot

GENERAL BACTERIAL MYCOTIC AND PROTOZOAN INFECTIONS

Smith G and Leighton W E The Treatm at of Tetanu with Special Reference to the Use of Magnesium Suiphate 1m J W Sc 924

The use of magnesium sulf hate in tetanus was it stuggeste by Veltzer whose experienced that back to 1890. In 1906 it was first employed by Mcl teer and Auer in a ca. of a boy with a s.v. r. infection. Interspinal injections rulled in a cur

Mag ium sulphate may beg n subculancous y intramas uil, nata no alvo rita p pulli, litis guvi nitrate o liyin a lique per cent solution in litis guvi nitrate o liyin a lique per cent solution in last stimeth i s thi sulu utancous ni peton lut that le u an alson rini (flet lies t cenou almi trati ng v th quok as result tout te effe tim be last sit g life op preen of the light per mind though as i at artacle for g a competent mid though as last artacle for g competent mid though as last proper labor last consistent mid though as last proper labor last consistent mid though as last proper labor last consistent mid though a last proper labor last proper labor last proper last proper labor last proper labor last proper last

11 al njecu

qui a lou f m iwents

of 1 is eight and for the subsequent mject on 8 cm 1 r each 20 lls Frequently the 1 jection

are usually ufficent to ercome the action of the mignes um sulphate

Meltzer advises the use of magnesium sulphate in cases of tetapus as follows

I Subcutaneous injection every six hours as a routine
2 Intraspinal injection in cases of severe spasms

repeated if necessary

3 Intravenous injection in cases with an element

of danger

4 Intramuscular injection under ether anæs
thesia when intrayenous and intra pinal injections

ct e of tetanus which were cured under magnesium ulphate treatment. Large doses of antitetanus se rum were given both locally and intravenously

In their summary the authors make the following recommet dat ons

Farly prophylactic doses of antito in should I given an I should be repeat d in ten days if uppuration 1 present or an operation is to be performe!

The antitetanus serum should be used also dueing the attack and as a rule should be given in travenously

3 Spasms should be treated by subcutaneous injections of magnesium sulphate. If these fail the magnesium sulphate should be given intra spinally or intravenously of value.

Morphine may also be of value.

4 The wound of infection should be opened and t eated with 1 dine and serum should be injected around the wound to block the progress of the

toxin

5 Inorder to ma ntain prophylaxis serum should
be given intramuscularly or subcutaneously on the

ighth or ninth day

6. I lequate am units of fluids an I nourishment
a dece ful nursing re-essential

a d c e ful nursing re essential

The react is supi lemented with a bil hography
of the recent literature on the subject

II OLD M CAMP M D

BIBLIOGRAPHY of CURRENT LITERATURE

NOTE -THE BOLD FACE FIGURES IN BRACKETS AT THE RIGHT OF A REFERENCE INDICATE THE PAGE OF THIS I SUE ON WHICH AN ABSTRACT OF THE ARTICLE REFERRED TO MAY BE FOUND

SURGERY OF THE HEAD AND NECK

Read

F tal d l yed harmorrhag from the i t mal carot d it r k ll inj rs G BARTH D tsche med Weh sch 10 4 1 875 Osteopen steal plast c p ration after crun c bral trauma A Ci 14551 Rivet P I clin R me 1024 xx sc

Dlatat n fdpl c in dother anat ment ana in theskill L T Lx\\ALD Am J Roc tg ! 1024 536

> BUDYN BOW I U 4 J3 45 C Rerevs

FUNDORF

VIAL ASS

"If nnesot

H SCHMERZ Arct Carcinoma f th lower lp J T Masov S rg Clo N \ \text{in 19 4 t 1 95} Lp th i m f th ip tre ted with r d um D W Montgomery d C D Cuiver California & West Med 1924 xm 6 8

Eve himiet de heutoes L. Liner

The rôle of the p thel leellung 1 cuval and rueal infections If J Howard Am J Ophth. 19 4 3 8 11 On the freatment of pa h m to s k ratitis B CR NCZ Atlantic 3f J 10 4 Exvi 6 [276] Ep scients from focal i to A O Princer ken tu ky M J 94 x 57
Tra matic aniridi J R Roques Am J Ophth 194 3 \$ VI QS

T M It Amb

71 c Ct act f No ng lectric shock W E BRUNFE

Am I Ophth 1924 3 s vi 95 C t ract so the ly ye ly ye C C MAUPIN Kentu ky M J 9 4 22 505 A C BEDDLE Md 1 & [278]

ct ope 9 4 3 8 VII

943

340

The etiology a d p thog is f p mary gl com

A M AIDEN SET DANSELY Letitusky Soft Set DANSELY Letitusky Set DA

Stud et of the Run e t t the pecual r ference to the tun ng fork t m for both bo e and aur e d et n

The tomater n one and thro t n k P B basay V d J B Rec 1974 at 54t -11 11 perst 1 J Atrophe th its and o 2 -11 11 perst 1 J Louis and P Lev A Ot 1 Rhool & Lo yng 1 1974 x A 0 1 k a -

Also 924 lex 1 2004

R d graphy of th temporal bone 1 e disease
A Perrus | Laryne | & Otol 9 4 rask 618 [278]
A study | the flect of roc tge 7 y therapy pon
n | &
y gol

.

1

a

Conservati trestment fibe bro cs pp rat e r
W H Ras r A Ot J Rb of & Laryngol 924
xx 1 187

This essory unuse his rigument fire servati t timent bised on a 1 mical it is A Tomassen Large scope 1924 zzi 563 in nos at symptom fina llary si u dise se C J Deinis Ann Ot I Rhin I & Laryng I 194 xxxiii 540

If h pers at 1 i familie ethm id) J Shea An Ot I Rhinol & Laryngol o 4 xm i 1266 Smulted m st dist 71 ed by sph n ideet my II h Lyava Laryngoscope 0 4 xm 048 Som point i d sease i Proc Roy Soc

Nose and Sinuses

Naul b mp simplified treat operation S F ROBERTS A n Oil Rh 1 & Lary gol 9 4 xxiii

Proc Roy Soc

The tree track of diseases of the maxillary sinus

B J Cirrs Med J & Rec 0 4 xx 582

Conside tion exestings a read cal operation supon the ma II re sinus Bristious Zischr I II Is. See u Ohrenheilk oza ix a

C E WELLY . .

,	
Mouth A mecha sent cloung completel field the soft and h d palate. A RACEPYSE Zish r I Stomstol 19 4 Z r Special field from the table B CATES.	The parallel sme between the clinical and the toll good pot res is ter il fluxe. Arch f kin Chir out cm. 78
1 81 Au sque case flymph sarroma with metata as to th	S J 924 c c 47 End esolts n som c dtins ssociated with r por bly ca sed by g t M B Tre. An Sure 1924 lexx 385 [282]
Pharyn Iulm is geopt c lectuon f the pharym and lary If Surm and Oil Khol & Laryng 1 9 a range of the pharym and lary if Surm and Oil Khol & Laryng 1 9 a range of the pharym chandand Frs 1 9 4 3 1 C A Sturson A J Roccus	Pursoner d W W Boottes The and aft Pursoner d W W Boottes The and J 914 at 1 se find ne Philaim g t J W R D Endocranology 9 4 745 h h t J M R D
327 Neck Descending abo so nth neck I'E PALMER J Am M As 9.4 lex ii 2007 POT WE S CI	bop de Pr 9 a 3 l 394 Dath may 1 B cdore disease U Nevotit de C La Dath may 1 B cdore disease U Nevotit de C La Dath may 1 B cdore disease U Nevotit de C La Dath may 1 B cdore disease U Nevotit de C La Dath la sy text in set i c cgo 1 Il Buners Medific to of the b l'm tabol m B sed w does set lle nap bb) lire ten t (gal a farade tr d rad th rapy "Seran's Se'r v and D to se Bull timém Soc méd d'hôp d' Pr 9 a 3 s l c 3' M 1 g at strum Il Hözers, Arch i Mala Chi
Lishri Limi 14 A case of itrains helg to H Scric exorisis Touch Zishe i Chur 94 l 45	94 45 45 Ban has c cum m G B ANDT D th Zisch f Chi 94 Ext 7 Wign tepth litem 75 th thyrod the pec l refer t th 6 blood esset A Gan w Sag Gync & Obt 94 extent 75 C m m ith thyr d J T M sov Sug Cl N Am 94 W

A case of i tratra he l g te H Sch c Enn nn D utsch Zisch f Chir 9 4 1 48

The parathy d gla ds J H Herrov Ch M d 924 835 The human parathyr ds in old age F DANISCH

Experiments with act e p par tions of p rathyroid other than that of the de ceated gl d A VI HANSO MIS g n 19 4 I 701

Glandular th rapy th parathyrod gl d W G

MacCullum J Am M As 9 4 Ixx in 846

T bercul of the laryn it significa e to th hys cian Six Sr C Thous I cet 1924 C 1 948 Brit M J 924 1 841

SURGERY OF THE NERVOUS SYSTEM

B ain and its Goverings Cranial Nerves Spl I g sound enceph I graphy If Mozo M d Κl 19 4 1007 1 cer b entr fr studes G W Swift Var (Surg Cl Am 924 1 485 It cran 1 juries CL Guice It ent J Med & S g g 4 x 499
Th principl of tr time t f cut raisal junes T D SP REGS S utb M & S 1924 I ax 1 523 A er bral case R O ADAMSON Clasgow VI I 924 \$ \$ 306 Su pend d expirat nac se f brain becess F N Sperry An Ot l Rh l & Laryngol 94 1 Littmporlibbe bscess ith rpotofiw c 3 CF he car An Otl Rhin | & Laryng | 94

C rebell rabse s J S FRASER Brt W J 9 4 m [285]

5

901

Also

Acute v tricular in ingit's L BARONNEY I AZERAD B II et mêm Soc méd d hôp 1 P r 924 3 3 xI 78 The treatm tof staphy lococcus dist ptococc men ingit s by conti s drai g of the ternam gna W I Daxper S rg Gynec & Obst 1924 12 60 [285]

HARMEL M chen m l W h sch 19 live pourst n the nill r A L NATE L t 9 cc t 17 V gus resect ni St ResAd m die e l l 17 H ES EN and R LEAP Kin Wh chr 941 121

Spinal Cord and Its Co erines

E tosts the body f the axi cau ing d th ly bulbar paralys s F 1 CHASE A the est Med 04 56 Ilym mm

12851

p

po tofic ses JT \re \ Orlea M & S J 1924 re im t--Tiber 1 m 11

U bralosteosa m mode id el pm t lith eo plistic tiss e L M net and B ll t mem Soc an i d 12 94 1 Implant to mit tiss nith s bara ha d paces m

Disc ss on the dign is a dit im t fe inpres.
p raplem A I gill. II C mill J W Burk o th rs Brat M J 94

P Iph ral Ne ves

Ac ig glio r matos B Rou \ NS LD DE DOWN 94 86 1 bbt (the std) [the regal epair f → nirlers If Delatite < reg () ec & 1287 pe pir I ers Obst 0.4

Cessat n fd beiesins p ? roe ig n ray t eatm t Ith pt tryg! d L B Towne J Am W As 94 1 1 2085 Fapeaure fith hypophy a. M Borchardt Zentralbi f Ch'r 0 4 1 208

Sympathetic Nerves S rufh

Webnische 1924 lexiv 1937
The aurg call t estment of ange a peet is and b | chi l a throa L HESSY Verhandl d Russ Chir Log Vios w 19 4

The theory and technique of sect in I the d pressor n re i ngina pect ris G Horen W med Wichn

schr 10 4 l v 1336
Cervic l ymp thectomy n ang n peet ris W II
Holmes and S W RANSON J Lab & Cl Med 924

The peratice treatment of hm chief a thm KAPPIS W d klin 1924 xx 1347 The nees t the blood vessels f the e te m tes. F BRUFNING Klin Wchnichr 924 3 87

Miscellaneous

Handbook f n logy M LEWANDOWSKY Berl Springer 1914 Artificially e mocephal G Liebenweisten, Erg b

Chir 924 C xx 5

SURGERY OF THE CHEST

ı

**

Chest Wall and Breast

A case of so-call u t

Infl mmat by carca m of the bre t eport 1

12391 Plast c closure alt breast mp tat n E Scherek MANN Zentralbi f Gyn k 1024 zl m 002

Trachea Lungs and Pleu a

A bone f agme to the trache with m ked s below A bone 1 same ti the trache with m ked 5 ognotic cedema M P SHITS Lary g pe 94 xx 955 A contribit to Mangidts of Koe g tr be-plity and mod fit of the 1 tte d g tr Hacker G O KITC A chikl Ch 924 xx

Fr gn bod e in the air d food passages ha ted e per n 1 1 55 ca s t th bron hos p cl c C Jackson Ann Ot l Rb 1 & Laryng l 9 4 xm Ac se f rulocul echinococ s d se f thel g M C ERWYLE Schwiz m d W h hr g 4 | 805

Sigery in the time to find my thereulosis H M D zes Brit M J 9 s u r 45
The surge t tre tm t of pulm ary tub reulos s J

CE GELY Gy6gys est 19 4 1 1 65 Pulm nary infects n with the prochatte and f form bac II of Vincent C McNama. B II Johns II plus

3 Y N

0 4 B ach stomy for bronch ert (c suppuratio H Neuror An S g 9 4 laxx 945
I dicat n f r see of th rape ti pneum thorax in l ng

abscess. If M Ricer R diology 9 4 m 47

Extraple ral pn umolys s in the treatment of 1 ng
bace. T. W. Buschmann, Northwest Med. 9 4 xxi

fboch lfistul byth se of radium & L CIS HARRIS M d J & Rec 1924 CEI 590 A pec 11 rm of ho droma f th 1 ng C B Mc C capper J C ce R e reh 9 4 48

The teh q employed a table has reface lp c
m th rax M Art n P l lin R m 1924 xxxx se

prt 6 VI cliap of th 1 g cut poliomyelitis e se The pleasy of stiff lip um there lineal from p gns treeting to L. Bernard d.B. Nov. Pemed P 94 xxxx 08 linical from

12931

310⁶

Cir time I stenosis of the treophagus with particul r ref r c it teatm in by c nitingous string retrograde bouguage with the author's boug G Trokker Ann Okal Rhipol & Laryngol 1924 xxx 2 80

R di mitherapy in can r ith asoph gus the results of fifteen years experien e M Rill Brit M J 1924

619 The treatment of pleural comp maing n ral and the

I dotheli m of the plu II L ROBERTSON J Cancer Pescarch 1924 v. 1 3 7 [290]

Heart and Pericardium

Furule 1 pne mococcic peticard tis _pet card tomy recovery A J Hatta d V Towns w Brit M J 9 & Th 5 rg I t estiment of mirral ate coss experimental del nical studies E C CUTIER S A LEXING a d C of 1

Brek Arch S og 19 4 ir 689 1291 R poure of the ventricle L \ S dwman Br i M J 19 4 ii 1955

Esophagus and Mediastinum

Asymmetry of the mouth I the crisple gue hof ret of phenyrs all of vitcula. If I Mostike Larying's operate as the crisple of the crisple guest as the crisple guest as the crisple guest as the guest to general the guest to general the guest to guest the guest the guest to guest the guest to guest the guest

Case I lymphos rooms I the mediastinum suggesting a f gn body in the Tight by h s J B Caven Gn J Laryng is Ottol 924 x 15 c2

Miscellaneous

the caperatone l'intrapleu 1 route of approach for int ath rac su gery 1/ 35 mps 1nn 5 rg 924 1232 908

SURGERY OF THE ABDOMEN

Abdominal Wall and Peritoneum Prant of the milious operational pend lastim n L be freeman Zentralit i Ganack 94

M 1 1 nois be tance by malite A P Hers ch g W kee 224 1 405 Med Tunes 9 5 11 35
Th ance of ma ps tent by more to him memory than 11 W 122 mm. Zetrafilf Ch 10 4 1 67 1 10 4 1 1 W 122 mm.

nii m reprepente in ... a., ..

The closure if in impald gun impald feet the res it of destro time relixation if souparts iga mont if Added gun impald feet mont in the control of the contr

54 theef free him tight diect temp bd m lwall W. W. B. w. W. t. W. J. o. A. st. C. fith mesenters for M. T. B. H. melm, w. and d. hr. J. 4.1 w.

M sent n cysis R A Milliery J I do na St te M Also 4 M 1417
Pa dooysts of the m nt lb rsa fraumat c ntin IR R2-R De texh med Mchenkir p 41 o33
Fors n f the own nt m I D ALLEN J Iona State
M Soc 4 4 540
Om t pexy D P O Paule M d J A Mirala 1014
1 5 4

De. 3.1

Tubert loss fthe pent n la dpleur lea stre ted!
th Alp ne lamp C A lerens (anno M 455)
4
16 path attriptocor c pentonus: fant n th the

In pain streptocor c peritoritis 1 last with the report lace 2 N La Dean R II NCB me Arch Ped t 19 4 x 1 785 Adhesi n of the prevaled ri. O F Layson Surg Cl. N Am. 9.4. 7

Expe m t 1 berrat n the partition in the section of the section for the section of the section o

1 1 R J ne Jo treb [pet Vat

ı

024 1 2162

Gastro Intestinal Tract

P th 19 4 x

A case I pyl ric obstructs lillo trating the d gnostic val f the d od n It be If A RAPSEY Med Tymes 1024 I 27 lyl m pasm de n of the pyl n g William U S aval M Bull 9 4 zzu 659 g L II

The p thogenes and the rapy of pyl rospo m S PACL. Kl Wch schr 10 4 m 1 3 S 10

The treatment of pyline at ms funfants L G LARSONS Proc R y Soc Med Lond 94 is Sect Study D a Child 29

cl xvi 33 The importance if the length form had term to give strough to G. Martino Med Kim o 4 4 The X ray ppe rance of gastric and dodenal 1 as trolled by the fiding at oper tin A Cze a Med 1 9 4 c68 [295] The diagnoses and treatment of gettie and decoderate of the tree and decoderate of the tree of the

The qet of them to it ble method f tre ting astric a d d od al ul rs. H FINSTERER Wie kh Wehnsch 924 x 1 7 9 prot in tr tm nt of g tr ul The OTE and Il BERGMA W Z ntraibl I un Bled 10 4

Perforated gastric ulcer A C M costs Brit M I The u gical treatment of perforated g stric and dod I ul rs STEINTHAL M chen med Wchusch 10 4 lan 003 The method of operation in pell rated galtine and duo-lifeer A NAST KDLB Ze traible Chir roull

I pt tile r E L WURZER J I wa Stat M Soc 19 4 X 536

SUR IDE 4 The techn sue of ele e of the dode it in pungatific esections. Williams Archifikhin Ch. 19 4 exxxi

Path 924 xx 9
Th prog ostic hi f th g stric a d tyin 5 table carcin ma H R HARTMAN J Am M.As 9 4 l

Case report Il trating the ly degnosis and th res its i fract n l \ ray d sag in the tree timent of c rene may of the tem ch W L R ss N brask Stat Obs reat n surgery (thest ma h J C SHERRILL 1 k M I q 4 XXII 530

Trames ruptu f th intestine do t extern l 5 2 Post pe to int toald s JH Fox s Hhe m M th 94 h 727
The medic lite tim t fichr m into tin latasis S k
Striov South M J 94 x 96
The tre l t tin lrigid ty in test l batru t B SCH VI d Klin 04 XT 49 ecsstig tun!

Ac t test 1 b tru 1 HI SADS NOI

t

1

f appe licitis

e testinal resection M HOFMANN Arch f ki Chi 19 4 CXX 25 An mp ed technique for 1 test n lan stomos s C A

71

Submucu Ipem 1th zecm W (Nasti B t Ore m fih eac m T M Joset S n, Cl N 1m 024 1 337 Th dm trat of thapped the aypet re

The pipe do-blary synd make ral drati Mana bak Stite Mana 477 Appenda Macaka Sig Clin Amag 4 ti ppeli llatatato Jlo t granit A t app I t in the fit I Baskanan Ann \ g | q | 1 tl 1 g Sim j 1 t jilan tuli ti Lilig te Liini Th tff (| | | | | | ppen; t The left /12 1 th rel t

- 3--

It usept adle RIS . آ The frequency of the state of t M ml 9 4 New libm tm fit His Bulluffit Hpiffi Nik

f i Rlfn

Web 1 941 43

1 & Rec 9 4

594

th th or

L'mphosare ma f th mall test 9 4 1 The first 1 pyl street W klen W best ГВч d B 8 3 0 4 The tit dirm 1 f mil f th d licit midii baga 1 mileo 1 b fih rolleg Nitt v nik kin Bilt mem Soc med I hop t I 4.4 1 10 ting di toulm fih f theportes fith d m me tg log calduag a d tm I noc 1 0 Is it a mem Now med 7 45 16 d hop d 1 "Harker Ou lal 1 Med | 1 tral

D lenal 1 [11] 11 11 Med J A tralia 6.9 Chro pef t giod it that th translation The medic I pect I ded tel Vied SCHL JAst h. 10 4 t 50 The treatment floor resectable 1 fished of me he may method figure resect the first in Arch

milinim we idel 924 milinippeict TID 1 ra 1 1/ m/

۱,

M I

Apped 1 bsc nih llt 1 fth scrotin in 1 d th (U iif B II i mem Soc n t 1 sm or t L th recal phys logy the g tro test 1 trat with peci l refer Hed bron pie i i ((H in (ho i i M

10 ki

V t II esset nd t gl m rat ppe dic 1 Gastro Int atinal Tract

Ar se of pyl ne obstrut on ill trating the d gnosts alue I the d od n I t be H A RAPSKY Med Times

> L 11 S Pack

A case of agent lhypertrophe pylestenes per t dupon the filthed y A D ka en Arch Pediat O s 1h Syl of pyl ne st osis f infints L G Parsons Proc Roy Soc Vied Lond 19 4 1 Seet St dy D Child 20

The q estin f the mot untable m thod f treating dd od nal le rs H FEASTERER W 1 7 0

Wehnschr 924 1 7 9
The no protect rate at fg in ul L R
GROTE and H BERGMANN Z tribl f on M d 9 4 1 337 m t f

Perf rated gastric ul e A C Macovie Brit M I 10 4 11 115 The sure cal tre tm nt f perf rated e in d nal ul rs STEINTHAL Muenchen med Whische

The m thed of per tion in perforated gastri and dod I ulcer A NAST KOLD Zentralbl f Chi 94 h I pur ulcer E L WURTZER I Iona Stat M Soc 19 4 xi 536
P pinc feer med cal and surpical problems. C T Heye Missouri State M Ass 1924 xx 403

Remarks on the t atment of the ne pepti ul r th
a report f the e ill strati e cases J D McEachers

d duo-

ι 1

500 **u** en en 1

Cas repo t ill trating the early diagnosis and the

024 CXXX 653

sult f fracts | X ray do ges in the treatment f

Traum the rupt re I the ant time de t extern lene. J If Dorso I ten t J Med & Seg. 94 XXX 11 50 td es I II Tones Hah e

8

1 ı

1100

924 111 7

Acute hamorrh g pancreatitis W B floures and

I L BERESOW and L M NISSVEWITSCH Ze traible f Ch 10 4 1 2105 Splenectomy in a case of hamolytic anemia A Cail

1 1244

BERTI I oliclin Rome 19 4 xxxi sez prat 16 9

Miscellaneous

Unusual loreign bodies M Conv M d Kln 19 4 XX 1396 Acut inj ries in along the abdomen F W BAILEY Internat J Med & Su g 1924 2XXVII 520
The acute abdomen J B DEAVER Surg Gynec &

Obst. 1924 XXXIX 744 Solanchin e angathes a in extensi e abdominal opera

34444 1Ev R Spl carm epotof c semalate stag cu ed by ectomy F Ilo GAY W P REPLES and W E

GY NECOLOGY

Uterus

ute 13051

The cure of ut in e prol pse by e du t in 1 th ro cles c natricting the vagi 024 H TO4 Uterine hamorrhag s d e to d t than st the reg

uter J HEYMAN Acta gymec Scand 924

A case of polymorphocellular sarcoma of the uterus F
Azzona Zentralbl i Gyna k 924 zlv1 2285
Tw cases Bustratung a deta | in the stat tics of cancer

I rad t n or ope tion frearcinoma of the ut rus R AURN Zischt f ner il Fortbid 19 4 x1 387 [309] Witson Texas State J M 10 4 RX 431

Kadium as pophyl tie a deurati gent in rec r
tearrin ma f the teru. If B they N I rk Stat J M 9 4 x 1 955 Clinical res Ita fier resdati n f can er f the cervi

0411 2 8

Adnexal and Perlute ine Conditions

A simplified apparat s for testing the patency of the Interputa t bes with accuracy R. T FERCUSON S rg Gynec & Obst 9 4 xx1 831
Tubal I ufflating 118 rites t the trime t f
strity F C rezer Zentralbi i Cynz k 1924 xl i Treatment fit ril tym w m IL SELLREIM Th rap

Lt ropan tal fi tulæ L Puccio i Ri n i di ginec 1924 14 197 13071 Ífis res í th. trus. W. K. nr. Pint D serta t n Frankf rt 9 4 1308] Aclini land tat tical report o sarcoma f the teni B STEIN AS T Wee klun W huschr 844 [308]

1 Gynes t bst

d Gegenw 1914 1 38 450 Temporary at relucation of the female II Naujous Deutsch med Wehnschr 19 4 I 406

```
F brosarc ma of th tra erse col F W RA EIN
                                                                   The form fithig liblidder nexperimental st dy R DEMEL dR BRUMMELKAMP Mitt a d Greng b d
  d J C CRACER S rg Gynee & Obst 10 4 MMM. 81
F b oss of th d see ding lon 11 5 STACK Med J
                                                                   M d u Chir 10 4 XXXVI 5 5
lust al 1024 11 653
                                                                   A clin cai study I ch lecy tut d h l ge ti
GUNDERMANY M tt a d Grenzg b d Med Ch
 Di erticuliti f the s gmo i T M Joses S ng Clin
`\ Am 19 4
                                                                   10 4 EEE 1 58: [301]
The centre 1 gral d gnos f holecystic d sease
                     3 9
 Preca cero
                condit a abo t th rect m A A
    Liver Gall Bladd r Pancre s and Spicen
 St des n the total ble VII Co dt n i fl encung
                                                                   1914 Livin 8 2
                                                                  Ch lang ts with st e T M Joyce S ng Clin N

Am o 4 i 1323
Ch lang su dch lecystitis T M Joyce Sung Cla
                                                                   N m tota f
                                                                     I tub t n fth comme bl d tio strature V Z
                                                                   Core. Lanc t 9 4 cvu 169
S rg ry of the b inry tract in the prese c f 1 undic
1024 31 275
                                                                                                                            3031
                                     1 4 1
                                                                                                                            HAS
                                                                                                                            less
 Amorbo hep tic ab as tre ted with met n only
                                                                                                                             bα
                                                                                                                             a
                                                                  D ses fith pleen! bile ps ges and pancreas
O G O S N GULERE L LAN STEIN C \ON \OORDEN
C PRODET d A SCHITT NUCLM B lin Spins
                                                                    The dag oss and t ime tof to pa reatti R
FREI A
 Th sympt m
```

un s /

The symptom f primery ream fith her b

Ac t Emmorth gc p nore this W B Holden a d K P Moran Surg Ci N Am 1924 25 Syndrome fr t f steatonerous of the pascreas a th nitractabl vomuling a d sthema P W RELEM d M YOUT Bull et mem Soc med d bep d Par 924 35 1 1 44

E L BERESOW and L M NISSNEWITSCH Ze traibl f Chi 1024 lt 2 05 Splenectomy in a case of hamolytic anamia A CELI BERTI Pol clin R me 1924 xxxi sez prat 16 9

Miscellaneous

Unusu I foreign bod s 31 Conv M d Klin 924 x 396 Acute injuries in olving the abdomen F W Batter Int mat J Med & S rg 10 4 XXXVII 520
Th acute abd m n J B DEAVER S g Gynec &

R pture of the chapter gm A R Koontz Ann S rg rg 4 lerr 848 A contr but n n the or gin and treatment of singultus M Karris Klin Wchnschr 924 1 1 65

feet ---

GY NECOLOGY

ut

ch

1

Uterus t xi n The e of ut rune prolaps by re-ed to 1 the on T'S Wilson But M I cles e stricting the yarr

0 4 14 Uterme bemorrhag det disturb sin the reg fired to n or oper to n for ca chooms of the uteru R Autur Zisch i e th Fo thid of a x 38, [309] X ray teain to clear to ma if he uterus R T Unison Te x Stat J M 19 4 x 4 3 Ead um apphylicad cu at eag nt in recu renter ma i the terus H Balley N Y k St t

```
tribona and t t
R
BA
```

NOS \$8A A Bnt M J 941 Brit M J 9 4 1 55 Some dct s I perat t fibr ma Rouryakr Gy e et bsi t tm t fut me Ut ropan tal fi tulæ L Procesost Ra t 1 d guneo 9,4

Gang e e f th ut s accomp ed by p l pse in a n lip a Heymann Zischr f Geb rish u Gynaek 1024 lxxx 11 2 8

Adnesal and P rinterine Conditions

th urg t f a alvu

Tr ten telst latyun som n II S linkin Th rap d Gegenw 9 a l 35 459 Temporary at nile in nel the female II Naujoas Bestisch med Wichnschr 924 l 406

E dang ing the c tituti n by temporary steriliz in n f the sexually matu w man A Grett. At chr f Th at resicral I gaments A P DURYFE \ rthwest Med 9 4 xx 11 566

hon lit to sl 924 x, 25
Some xper en es of cases of t bereulou salpingooophorit P Wettern L A tagy et Scand 19 4 lit E ternal Genitalia 75 Roe teen treatm 1 of g 17hozal b rtholinitis H 1 n

1664 Prioric cillate us in the blood cont tof the blom Miscellaneous Ther

Schwitz berg 0 4 Chro c back ch gyn c l gy D Data t. La t

The clity to a filman cans to to B
ZONDER, and F Worre Zengalbi f Gyak ca Tu 2193
Acce from pi tte n i ter plant i n fth
ry ndr observi frin years i in a
Dutse) med Whan h 1924 i 378

α ı . 111 10 1

r 11 () ss ſ

Sign Case I wan n fibro 1 th thrie tw ted ped 1 M PHOREM Illin 4 M J 19 4 11 437
O an n therapy I NOVAK J Mm M 1 928 73 T D DS 1 10 6 1 ** F.C ES Cl d la th rapy the pharmac l gy of sman p prating C W limuves J Am M Ass 94 l LINGAR

Glandul r therapy the physic gy f the mem lan-nes A J C RISO J Am Ni Ass 924 l xx rrho GELL A a 1 m cal lin al tudy f p ro ar cust M 1310 FORN AM IV LOCU Fronts R: ital digner 1924 1 7

OBSTETRICS

A te at 1 s p rvs TR CV INCLIS N 7 land M J 9 2 X 1 47
The care of the pregnant wm by the g lp of the R M A 5 sov J Oki h ma St t M As The tlet a d t pel m try M B Sav & Vigi M M th 1924 1 575 M th 1924 I 575
M strut and ftald I pm t A Szenzs d
O M vo E Z talbi f Cyn k 94 xl

2 4

The relat n b tween m th r and child n the basis of mb at n of int I secret H SELUHEIM Muenchen m d Wchnschr 19 4 lxx 1304 Old p m p ræ A HAMMERE Dissertati n F ankfort 1312

Dis ertat n Goettingen 1924 Premature sep rat n f the norm lly mplanted pl ce t H LUETKEBOHMERT Dissert to Goettingen IO 4

t, m I h m

Thunfin f then it n po the carbon doxed

The t time t of recent subperstoneal abort n n; n s A STREISEL Ze traibl I Gyn ek 194 l u 20 Ectope g st t n \ B PHILPOT N O leans M & S J 1941 24 Ectopic gestation D I Davies Cincinn ti J M

XXXI 505 St des of the ch lest m t t f th blood and of the as a contract lest in t t fith blood and of the duode al tet in peg cy D Ferracciu R ital dign. 194 in 5
The polytic ferm into fith blood's rum in p. gna. v. F. C. teer R. tld of sec. or v. 2.

tser R tldg ec q24 m 83

TI

5 9

F---

T

li 165 P dunc ltd gm lhæmt ma p gna y gre E Scrizze Z traibl f Gyn ck 94 13141 Lly preg 3
Brit M J 9 4
U t f l mp 1 pth 1 m ta C W A Fm

G ral pyzm folio a g ett ge f ectop c p eg cy W B HOLDEN d k P MOREN S g Cl N Am 941 253

Utri mp

M Athful 94 6

Thit tip gn cyfm hpt in

Price write Atagyn Scad 924

Imp S J Scad 924 Ecl mps H HINELMA R Tw c fel mp C SCH E R Z 1 lbl f Gn k 94 I sectio

11 J 94

Tra perit e l æs W Fig Zer f clmp-Zent 1bl f Gy [315] Rec t bsers r Rec t been r f t pth lgcl fth m R P DDOCK Am J Ob t & C m di. 546 13151 Hydram w fth 505 % th F kí í The peod from 9 t 9
F ki t 9 4 N R CI R A te hyd mn dhmlng

R DAL Am 1 ()

Labor and Its Complications

datha— elt

ch

9

0

Dis-

t plit

R

Obttcal k

R tal examinat a du glabor O DESTRERG Acta gyn c Scand pay n 50 The te hn qu of tells ry under hypness IRA WE. I atsacht f G b tsh u Gyn k 194 lt 125 I tes n the mech cs and clin al use of f rc ps

Druelly Gynéc et obst 924 x 385 Tw obst tri 1 emergencies L Hamilton B owne Bet M J 9 4 H 1208

Labor with b wipre intation with a transversely lying tafsuture C Lise henc Z ntraible f Grn k aga 2060 Brow p est tation | 1 bor ditt managmat R

STIGLBALER II natesch f G b rish u Gyn ek 1024 Traum to s par to n ! the syn ph sis pub d nog d ! ry A E Cutshoun J Obst & Gyner Bret Emp to 4 xxxx 6es An v man ey t compleating l bor C I G TALLOR

Rivanolin th & iment of puerperal fe er & FRANKE Deutsche med Wehnsch 1924 1 963

I termittent frem tio f the uterme c vity in the treat

ment I is erneral septi e dometritis P Pranzi Cl ost t 9 4 xxvi, 438

Sp rochetes in the locks I secretion of pur peral were H ZGELKE Kin Wchnschr oza ni z6z

Newhorn

The relation I the sedim t too rap dity I the red Il t th coll of cond to n of the place in mi t G Hann M n t schr f Lind theilk. 102 xxx.ii

Intracrans I have rabag in the ne ly born tre ted with have state seriou. W. R. Groves Med J. A. stral a Air mbol in then who and in inf t and the med col gal importance A. Li. D 1011 Arch. i path in tu Pi) i 1924 cci 97
It rus n n torum K Meren Mon tesche i Ge b rish u Gon el Jose Ly 317

aibi f T 15

٤.,

wc... -

Lmp 9 4 xx

O

Miscellaneous

Puerperlum and Its Complications

th ec 1924 in 35 R curring atomic hamorrhage & Fuence Da s eta

n Frankfort 1924 The influ nee of myomata pon the third stage 11 bor

Fmp 1924 XXXI 647

prod ctr n fap epo d ting number i d sc ndants of the am s ? J BAUER KI Wehns br 9 4 in 928

The trasms a of m fform to sprinced ly har lp

d polyd tyl m and ther rel tion t ob tet es F C Leveker M patisch f Geb tish Gyn k 94 lt i 377

Z aland M J 9 4 TH 395

Timporty tiplists by the sismanal fide m (Closentiand GV Scre Ri tal d Minla linfantal m tity Washown N

Oth teatm t fp m If r d pt th C mela sol t G S x 1 fv t ta gym w th C rrel a sol t

9 4 55

GENITO-URINARY SURGERY

Adrenal Lidney and Ureter

WERER Proc Roy Soc Vi d Lo d 1924 xvu Sect (322) 10 of 66 a i

ĸ

S t Urol 4 Renal calc lus complicating bypernephroma H P W WHITE Proc Roy Soc Med Lo d 1924 x m S ct 17 1

med 625

13211 Roentg nol 9 4 xx 43
Tw kil ys n e side f the body with m lt o s f th ut SEUBERT Muenchen m d malformat Wethnische 9 4 ivan 40
N tes nath clin lasp cts Ib s sh kid y N P
RATHENU J Urol 0 4 216 1
Surgi al horse boe kid y report of n u lc se 97 Fifess JUl 94 07
The last ficate determine fides ses fith hid C M GRIG T 5t te 1 M y dlypert

O 4 XX 44 Th influenc of disc sedki 5 the h lithy k 1 y experim tal t d nth q esti f ph t in dac nt b t th d t manat f lf t by m ans f and gocarma f! WALTHARD Ztsch f rol Chr 04 63

The gilt tm t fren l s ff5 n y \ Bitts Ztsch f U i 9 q in 555 Th lunglf t res and d gn s f hydro ephro The line 4 if three and dign is the sum HP When E Brit M J 9 4 43 Hydron phross in hiddhood A L St E Atlant ll j o xx

55

٤

A case { 1 hypoplas combin d with cy tied gen rati 11 Huser Zisch f rol Chi 19 4 3 A discuss on polycystic d sease of th kidneys. S 2 T 11 zden Sin B Spills uny A G Forbes d F P

\ \ \m 024 4 33

Acs of ren lc ce the diff ec ta eo metast s in an ea f dimin h d r t nc A ROSENBURG Arch f kl Chr 9 4 cx 58 Soma (mbry m) of the kd ey nif cy G B PACLARD IN A BLUMBERG AM | S g 0 4 XXX 1 306

Compl t ns of eph ect my R FRONSTEIN Zischr 1 Chir 9 1 1 Chir 9 4 5 Complicate 8 of phrectoms G received Zisch ful Chi 924 65 The regal diseases fithe kid cas and rit rs textbook W. Zoyden, Britin Spring 1924 The so-called essent 1 trac psul p al hem toma. A Rosentere Zisch lul Chir 1924 vi

SS Termephate absc s \ C Hovr J Am \ Ass 1324 9 4 Ixxon 2 0 Pennephrit abscess as a prological problem

OCKERBLAD J Am VI Ass 9 4 IXXX 2 74

Nph t my dd ge of permephritic hae un dr p ra rtebral easthes CF lizmez N braska St t M J, 19 4 ix 484 End results in on c see of instance tend on CF.

Find results in oo c ses of u cteral strict re G. L.
HUNNER Am J. Obst. & Gynec 924 in 793
Ur time calcular Transferon Proc. Roy. Soc. Med.

Lo d 924 in Sect Urol 4
P p ll ma of the uret r with hydron parosis E T C
MILL AN Proc Roy Soc Med Lo d 19 4 xviii S ct
U 1 5

Bladder Urethra and Penis

The regular teatm t ferstrophy fithe bl dd with the report of a case L Davis Bo t M & S J 924

Practs al p nts bout prostat ctomy R C BRYA.

South M J 94 947

Permet P postatect my LEM INE B lles-méd

19 4 V 93

M Ass. caln k J Am

Coste

pr tat ct my A Lieschied Zischr f rol Chi 19 4

Ad his ma of the prostate with prismatices leaked A H PEACOCK Surg Clin N Am 924

A sto e in the bl dd with a pin a nucleus E C. Ballenger and O F Clora South M J 19 4 x s

An e ten e caremoma falargell dd di risculum E T C Million Proc. Ry Soc M d Lo d 19 4 vi Sect Urol 5 Thent sical(c) t scop c) treatment of c cin ma f the bladd by th implant in i rad m manation the A Hyman S g Cynec & Obst. 1924 vv

t be A HYMAN S g Gynec & Obst 1934 vt 827.
The d gno s dere time tofthem recomm 1 o s the presence r than L L Palmer Kent cky M J

f the prostatic r th a L L PALMER Kent cky M J 1914 x 568 Ad verts 1 mof th urethra containing a large calcul s

Ad vertil most the urethra containing a large calcules the frequency fider touls in the prostate urethra the tind ny towerd calcule form tone the present

Miscellaneous

P cuc furology fr t dent and phys can H G
PLESCHER Ven Spogr 924
A study of th hydrog on c tratum fth nu
of afants prelumin ry pot B L Romson G
STERRS a d A L D NIELS Am J D Cald 9 4
H H 127

M th 924 l 55

Genital O san

Prostat s rg ry- ec t N B LOCERTON J So th

LOWS BY J Mid So N J 3

355

gland

Cyst othe surchus I. T. C. MIRLI AN Proc. Rov. So. Med. Lond. out are Sect. Wood of the Brogger In the Supple I on M. A. 1924 like 1857.

th

L OVARI J U

This et in fin ter dalumne and d infe to not the
un ary tent following the oral ad a strata not certa a
likyl denvat es of reso on 1 V Lronard J Am Vi
A 924 1812 005

SURGERY OF THE BONES JOINTS, MUSCLES TENDONS

C nditions of the Bone Joints Muscles Tendons Ftc

7 k V I t mat

i li

Ł

A case f primary arr cular localizati no Cohn but il's D Maruje Dan Maram d 2011 * 204 * 205 * 2

Chon cinc cire ring is A W Forness Can is W if I to 4 miv of 2 Th teath at of hr nic arthritis by h t and light

IP ten i kiin th 14 t. 2 d
Otto chond t deen so hoe g G Nxnats
Nin Wch sch 9 4 57
C teom 1 and sr t i g with f the bo sun
Idio di Aln Vhilk Chr 024
Th phys f m (the d f mat 1 1 k is C 3)
_ nr s brg Clin V Ar 024 1 204

C LECKER

 10 4 Jana 4

x 274

By chyph lang a-a c ngenit l malf im t n Fsat 26th l Lim Chir gra cxxx 7 6

Injuries t c spal bo es G N Wassom J I 1 S te U S C 1024 546

Obse at n th u ren i po ri um I SERFERT Arch i th p u Unfall Chi 10 4 cr O teochondroma i ph lan. I D HANCOCK Ke tu ky

94 t 955
Ac t bion to th treatm to fine d send o s by
x ses L Audry Zischt f rth; Ch 1924 xiv
The m rph logy f the bs in scoloss A Kerk
Yisch f o the PCbr 94 xit 96

356 Backache C M Ryno Int m t J M d & S rg 19 4 XXXVII 5 4
Malignant ch d ma f th lumbar ertebral column
P RAUL and A DISS Bull et mem Soc anat de Par 9_4 XCIV 395 , 546 19 4 1 1457 A st dy of traumatism to the upper d f th f m JA KEY S th M J 1924 xvii 05 Congenital d f cts of the femur S Beng Zischr f orthon Chir 1914 alv 397 Fractives and Dislocations tea report fan un ld st cation W M Lips-come K t cky M J 19 4 xxxx 57 Fract K Spren J I dian State M Ass 9 4 Compound factures G E Wilson Can dian M As J 924 21 64 4 3 Co ry ta t atment of the boeing ry mound fact W G Stern J Am M A 9 4 bexx **#68** Fan ti I rec ery in fracture with ut relition to nat mucal pitton F M IN Intrinct J M d & Sirg 942 xvan 488
Lapse un tin sig ti nao th chemi iprocesse in fetre halms and discription from the defail among it E Hizermann Arh I kin Chir 9 4 xxx Pes equinus as the result of true acute polymy s us R STRAUSS Zischr f o thop Ch 1924 xlv 59 LE ρĒ hr 19 4 XXX 917 Ossificatio d sturbances of the calcan a sa a distint d sease p cture L Hars Zentralbl I Chir 19 4 1 698 Surgery f th Bones J Ints Muscles Tendons Etc The tree timent of bone and perioste I panaritum BUSCHMANN D tech m d Webnech 924 I 446 8 6 M KAT MAGNES (330) th p n a cixxx 4 in tre t d by m 1

9 4

pru oy

m tw R F LOUNSBURY tr m t tw tv

CXXXI 453

L i i the hup; int and their red ction with the I The use of plants in the treatment of fractured formula. W. M. Fixon Bell Johns Hopkins Hospins Ball 1924 W. M. Fixon Bell Johns Hopkins Hospins Ball 1924 XXX 417 A KEIDA X

Orthopedics in General

The bo esetter and hs profess on 1 brother G

500 nt dechur 0 4 l 935

SURGERY OF THE BLOOD AND LYMPH SYSTEMS

١

Blood Vessels

An e p ment I study f the an tomotic circulat in the dg FL Reference Bil John Hopks a Hosp. Bit 1942 xxxv 385.
The the ry of calculum d positi n the organism and the priceal signal face C R H Rank. Much he m the

With hr 10 4 hxi 468
Fat embolum from h m nol inject ns H Koch
De tsch Zischr I Chur 924 clerx 2 273
Post perat pulmonary mbol m P LOCEHARDT
M NOW B

not f m

Blood Transfusion

Blood I um t d V Th cal um ont nt f blood dod n 1 and cusuff en y E kvin. Zisch f d ges npe Med 074 xllu 365 i tg t m n w q st 5 reg rd g th 1 coyt —m lipl ct by cutane stum f tin W

d labamoclastic crisis etc. M Kappis and F Gerlach Med Khm 1924 ax 103 The s cess? I treatment of myel d leukamia with

The a crease I treatment of myet of leukerna with

Freemmental int stimal permi ous amerina in the dog

Lymph Vessels and Glands

Thereof sgind of the nek J W Gisbon South M & S 19 4 1 xvv 5 8
Th f m in a f thoracic d this la digit not the threaced t H W knippion and H knewner, Js.
Bett klin Ch 924 CXXXII 1 13331

SURGICAL TECHNIQUE

Operative S rgery and Technique Postoperative T eatment

O time f s g cal t pograph c an t my include g tudies n the i mg O Hildership Munich Berg mann 1024

Phenoleamph V CRIUMSEY Zentralbl. f Ch. 974 h 167.
Studie with chloram n Heyd II. Bezor. Ze tralbl f Bakt 1 974 465.
Re 1 n su g ry W Bock De tsche m d W hn schr 196 4 11 145.
Two jears f n an 1 O Beass D tsche med Wehn schr 1961 11 45.

lun 3 4

Pe d lou flaps f G runny ped eled tran plants L. Mo Kowicz Irch f kl Ch 1924 exxx 96

CERRINY 166
The theory of the act fm reune chl nde d
feet 2 I Kr 26 kl Wehn chr 9 4 l 7
Am thou frunc es gth tis pt fi et fmercus
chl de G Jacomocott Mrd klin 9 4
n rived I i runcul

C to many 7

37

- m ft me 1 in lun

Anæsthesia

The post persus of limits to persus the fill in the transport to the post persus of limits transport to the post persus of limits transport to the persus to the persus transport tr

Antiseptic Surgery Tre tment of Wounds and Infections

The method has a the blood essels a december of the Merchant Arch I kin Che pate est, 35 The question that the specificity of wo not borns ness K. Nasverris D utsche med West setter 9 4 1 48 The improvement of quantity of the setting of the setti

_ octr

m ry

lavi s 8g

The q est of the unt gral th appy funfected w nis Zu Goljanizen Z traiblef Cha 9 4 1 2 0 Th tre time t f c te wo d 1 fect o O ktern

schungr Med Klin 924 zz 3

with a beeing pygni Z traiblef Pi Med 94 40 Ethylne A B Licer and J Am M As 94 Ind 660 Ethylne a batte N S Heave J Am M Ass 94 hzmls 266

The eff t fethal seaveen at he as the cid beblee fthe blood CD Lease J Am M A gay has used? I met boism at dy fethyle e ame th H A Obernieusen d H A Driviewic J Am M A s 9 4

OBERNELMAN dHA DYNEWICE JAm MA s 9 4 hex 1 20 Deblor a s a marc t P Albrecht Wen kli

Whish 94xx 685
Local and reg nal a rithes 1 prates po th
Rd JL austrix Md J&Re 94 cxx S pp
lir mi

On the it god sy ergum I m gn i m lipht d morph e wh n my cted pri t the milion f z th by the ether-of ol n c m th d H Brcxm\ J L b & Clan Med 94 189 [335]
Anarth Size—g I land spin I H M Str. rocse

Anasth stage g l and spin l H M STR THOUSE US N 14 Bull 99 Pra th l 1 t F Brown W med Wh sthr 94 l 95 Obsterr and ralans the A Laeven 2 traible

Obstety and raignee the A Laeven Z traible f Chr., 941 000
Local Eth J. L. F. Kells D tal Cosm 94

Sol esthm anæsthesia S Frey Med Klin 1924 tx 1352

A wangst e (ta j 11ERF RIH 2 kl Chir 924 cxxxi 6 T toc 1 5 a 5 perficial angsthetic k Gentzsch klim Wchischt 9 4 l 1537 Tutor in as a mucous membra e anasthetic F Strancerr Zts hr f II Is. Nasen u Ohrenheilk 1924 A propert covering some f the periences with the new local anasthetic tutor in a rg cal op rate o O Wirmsnow Y Mucachen med Wh sch 194 ltx

Local and the sewith tutocain in major abd mid perations. He fresterer Wien med Wichnschr. 19.4 lz. 1. 205

PHYSICOCHEMICAL METHODS IN SURGERY

Roentsenol av

1 1 v

9.4 MEX 73 37 Was eform nd fficincy n analy froents n thrapy mach es W. E. CH. MEZELAIN Vm. J. R. t. g. 19.4 1 509 Gold filt respectivementry in Vray prate C. Het ex.

Ly Septema sant deep nigentherapyd meity E TLEDDY nd JL WEATERWAY Am JR enign i P 4 All 5 4 000 between the Frenh d the German ythem de a same sur den the Sol mon nice and the s

y 4 1 470 Some I am tal sd at sin dumad oct k en ty ther py C D E 1810 Am J S rg 9 4 20 Ch ge in the blood p to e f ill war, rowing nurad to in H H MATON W the m d Wichneb C 1810 S 181

The effect n tumors of rad ton of dff nt wave 1 right F C Woods Am J Roentgenol 1924 21 44 4 (336)
Observat n ntheeffect 1 Tray rad 1 nonn rm 1 more and more with remon F Kos Strahlenther

9 4 x 327

Exp rune t I clinical e d ce pport ng the ton f the sec dary adiations f om the nigen tub n th

ED ABAL

943 111 696

Radium. The act n fradum on plat danum liss s I

Laxiv add Levive J. Am. M. vs. 194 11. 63.2 [337]
R. d. m. pun. tv. by m. ns of strongly like ed raid until the control of the strong pole at a control of the strong pole at the the strong pole

Miscellaneous

When a dh wt elect pby oth rapy mod lty W 5 KEYTRO J Rad l 924 v 42 Phys therape tic m d B B GROVER J Rad 1 9.4 4 5

The teatm tof man th unlight \ Lecker

94 70

) I g ut ma B I Schreiter dW L MATTIC

INTERNATIONAL ABSTRACT OF SURGERY

MISCELLANEOUS

f

Zisch f

1 10 4 EV 120

Clinical Entitie -G neral Pl yalol gleal Conditions

F TON T

756 Adrenalin; the blood if pient with speciations gangine W. W. Charley Architi Chi 10 4 93 Spot us g ng ne f th l tenuthes T karna Deutsch Anche f Chu 94 l rr u 86
A clinc I contrib t n n th tre tm t i n ni ga gren k Barrii Niu be med N h sch 194

Issi, 1278 Th us of c m lod compou d the treatm t I turnors ac tributio on the chem therapy of turn rs

due t ascandes il 1 m b

Med u Chir 9 4 x x 11 469 TOTAL DE LEATE

t.E g 10 4 lxxx 810

R po t face of ro lipf ben gu cystic ep thet om
A J Gilmour Urol & Cut n R v 19 4 x 19 10 Gran loma inguinale case port W J You'c A

t cky M J 0 4 xu 5 4 5 Th st dy of m I gnant tumors Th ge eral st dy f mors I the skin n rv s 3st m b d nd ne k P ZWEITEL IN E PAYR I P g III el 9 4
Unra ching the ca cerkin t II 1 Crona Med Tim s

941 281 Can r-cas a d pre ntion A II Wascur Am

Med 1924 xxx 716

The que to n f h r d t ry transmiss n f cane r O
5 NYIDER Mu nchen m d Weh sch g 4 lexi 134 S NYDER AND REARD TO A WEN SEA 94 FUL 134
Theg a ralpath logs of malego at the 3 M Bosse
Lep g Hr 1 94
The me stagment rs to no me I grant tunners W
to LI Eng band I Md kind th 94 xxv 944
The courtene of copi to bot in min me et
BRUNENTMAL H WILEY & d P MEY & Zich f
BRUNENTMAL H WILEY & d P MEY & Zich f

krebslorich 9 4 x 387 klin W hn h 9 4 m ~ 1 mttacom

[339] кыб

The d lopm t fth t m t r c t t can f M Bao r Zis hr f Krebsf rsch g s 344

The e ten f th tre time t f cancer by usiqual prod edinflammatio H Spune Zischr f Krebsf rich

924 EX 294 The desiment of noper ble turn s. HARTTL C. Be tr kho Char so 4 cxxxx F ISHIWARA Zisch f The chem therapy I ca L ebsf rsch 924 xx1 268

Gen al Bacterial Mycotic and Proto o n Infections

I estigat one r garding the possiblity I real immuni g to again to mocre a distribution II Killian Zische f llyg I fekt skrankh 9 4 cm 279 I there person ce with student tests of stepto occ E Putter M ch m d Wehn hr 1924 1 571 trule t staphylococcal inf ct o Lyncu N Z aland

M J to 4 2210 435 C b cular septicarmia J Crov Presse med P 19 4 FIRE 9 Tta A L HARLAN I ternat I Med & S re

S924 EXX H 49
Wh t do w kn w bout t tan s? T H HARCOCK What do we have bother than a fight and the first J Harden K and the first J H Blackburn K toky M J pay arm, 535

R post if us is of tany J P Munko and E J Wanamark South M & S 924 in m 5 4

_I o c es of teta s cured by mas e roth rap m m Sor med d hop de

The g rai pect of tubercul ass p ese ted by the rays J D M eRAE Radol gy 9 4 kt 464
Figs pel as cersal liyeu ed by th a beutaneo mije
non f cows mije T A LERBETTER Can di M Ass

n --- p -d J &

Army

Du ti a Gind

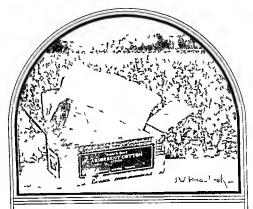
Th q stu a {a bettut on fthe docum gland (the ternal secrets of the sal any glands)] A. Got pastiers Ant 1 kin Ch. 104 ctxx 763.

End cran I gy in p di the state per left ence the hypople the dy pitutary type I child II L. Down Arch P di t. 94 h 8

Surgical Path logy and D agno is The eption funfilms to B Frience Munich B rgmann 924

He p tal M dical Education and Hist ry Udrgrad t te hing of clinical path (gy in the

9 4 73 Udug d t and grad t t hangin phthalm l gy B t J Ophth 19 4 Vm 59



WE PUT IT THROUGH MORE THAN 20 DIFFERENT PROCESSES THAT IT MAY REACH YOU STERILE AND ABSORBENT

You can drop a dab of this cotton into a tumbler of water and it will instantly sink. You can remove it and it will hold water amounting to more than 20 times its own weight. That is great absorbency which only cotton treated in our way can claim. Its purity exceeds even the exacting requirements of the U S.

Pharmacopoeia standards There is no secrecy to its sternlity Any cot ton can be made sterile It is merely a question of the manufacturer being willing to incur the added cost to do it There have been times when just this one feature—steril ity—has meant an actual loss to us on every pound we sold

A ymember filter f what takequat duth the stues f B wer G Black product is whicom to tit specime with a tchaig. Merby indeat the distinct f is the second of the f through f is the second f in f in f in f in f is the second f in f in





Complete Cleanability

Patterson Intensifying Screens are completely cleanable In other words, surface marks, smudges, which have not chemically combined with the screen material are entirely removed with soap and water

It is not a question of washing away most of the dirt, but all of the dirt

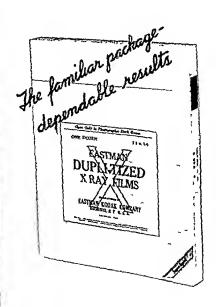
A small test sample will be sent on request free of charge

Patterson Screen Company

Dept S G O

Towanda, Pa





Eastman Kodak Company

Medical Di 13101

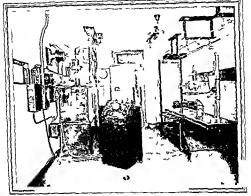
Rochester N Y



AT YOUR REQUEST:

JE WILL be very glad to send you o copy of our new publication. The Modern Science of Diathermy This booklet is especially inter esting because it represents the experiences of eight or nine of the best known authorities on the subject abstracted from their original articles The theory of Diathermy os well as some of the numerous conditions in which Diathermy Is in dicated is very fully explained This method of compliation elves you the story of Diathermy in the Doctors own words and olso presents o variety of ideas and opplications Just mail your request to Department D East 30th and Superior Ave and we will be glad to mail your copy immediately

THE ENGELN ELECTRIC CO Ray and Physiotherapy Equipment-



KRay Labor tory J D A D Wilm h Lou ! Ky V ctor Equ pment Th oughout

Time and Use Reveal Victor Quality

As months and years pass the Victor X Ray machine installed in the physician soffice or in the special ed roenigenological laboratory un failingly responds to the demands made upon it Day after day the same trustworthiness in operation the same certain results as in the beginning

Thus time and use reveal the quality pains takingly built into every Victor X Ray machine

There a ample V eto X Ray in hine with him et the de mand of g lyra tice d powerful d gnot a d d p therapy pp rat for in tiu too a d l born or. The same V to quarity t built into all

W hall be gladt ugg tth type of V tr at llat on be t I sat d to meet th requirme tsofthephy name r t pacte the hop r for pec 1 ed labor r y

VICTOR X-RAY CORPORATION 236 South Robey St., Chicago Illinois

5 (Offic a d Serv Stat on All Pr tod C:



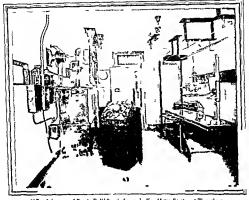


AT YOUR REQUEST-

W L WILL be very glad to send you a copy of our new publication. The Modern Science of Diathermy This booklet is especially inter esting because it represents the experiences of eight or nine of the best known authorities on the subject abstracted from their original articles. The theory of Diathermy as well as some of the numerous conditions in which Diathermy is in dicated is very fully explained This method of compilation files you the story of Diathermy in the Doctors own words and also presents a variety of ideas and applications. Just mail your request to Department D East 30th and Superior Ave and we will be glad to mail your copy immediately

THE ENGELN ELECTRIC CO

XRay and Physiotherapy Equipment-



XR y Loboratory of D A D Wilm th Lo wil Ky V ctor Eq thment This gho t

Time and Use Reveal Victor Quality

As months and years pass the Victor & Ray machine installed in the physician's office or in the speciali ed roentgenological laboratory un failingly responds to the demands made upon it Day after day the same trustworthiness in operation the same certain results as in the beginning

Thus time and use reveal the quality painstakingly built into every Victor X Ray machine

are a mple V cor X Ray m chines whi h m t the de m d fgc ral practice a d po rful diag to a d d p therapy app ratus fo inst t m Veter qaty i bult

We hill be gladt gg tth type of V ct r til ton be t cal ul t d t meet the req ment fahe phy g er l pract c th hop talor pecil d 1 boratory

VICTOR X RAY CORPORATION 236 South Robey St., Chicago Illinois SI Office a d Serv St ton pat Cu .



An Unqualified Success!



The Precision Type SIX-SIXTY X-Ray Generator

Ever a nee the Ny Sytty was first annou ced some months ago it has some dan unq estoned pastion as the most pop I rofth Precision Type G ner tors The literal H d of or I raw which was be a necessity of on all p ris fith wo kl especially since the int tallation of the hirst hity mach as we bed e with t p cedent in the hist ry of the \ Ray dustry

The Coro less System of Rectifi at in an exclusive Acm Int national for all n h s m de it possible to prolice such a small ind

compact pparts with a capacity ufficition all diagnistic wik—an id I aupment all ke for the Rontgin poil list or thinge elipautition frithelingers stittion or the smill emerge cyhipital

The vince as in number of ordess cofthe first is that to swe in disinists life to this like the prift in nee of the Sx-Si ry u der all codition of himd tyind alt to de Ask, the Doctriwho his fan yor ston of pri

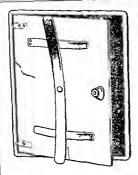
o pro 1 ice such a small had 1 an spr sion of pr 1

An 1 lustral d descriptive bulletin reladly sent on request

ACME INTERNATIONAL X-RAY CO

349 West Chicago Avenue Chicago Illinois
Sales and Serves P b ese tats es n All Lo littes

Ex lu v Manufa tu f P cls n Typ C onal Appa atu



Keleket Equi-Contact Cassettes

The latest Keleket achievement Assures positive and equal film screen contact under all conditions Reveals anatomical detail with exceptional clearness

Solid cast alumin m 110 f na leveled to perfec

affected by handl pression spring, we lead lining of lid—

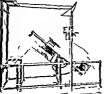
Tube of Keleket V

D tpotpo t Equipted y n th k i k t Eq. C nt t C sette Any (th k i ketdest i tr bei ա տ հi թրե y ա

or scrite

THE KELLI'S KOETT MANUFACTURING CO Inc C at K teky U S A Th T Ray C ty

Several Hundred Dollars Will Be Saved



if you install

A MULTOSCOPE

Instead of an ordinary Radio graphic fluoroscopic TABLE

Send for Our Latest Catalogue Describing

MULTOSCOPES

LLINOSCOPES

THE WM MEYER CO

1648 NDRTH CIRARD STREET

CHICAGO ILLINOIS

In Modern Surgery

Manufacturers of \ Ray and Elect a Medical Appa atus

The Post Cautery

No Rheostats, Etc Works on Alt or Dir Current Silver Kmfe Umform Heat No Electrodes

Portable Compact Dependable

13000 With Any ONE In strument Except No 5
With No 5 \$37 50
Additional Instruments

\$12 50ca Types 1 2-3-4

Note No 5 is flexible For Nose and Throat

Used and Endorsed by Sur geons and Hospitals Everywhere

ASK YOUR SUPPLY HOUSE FOR DEMONSTRATION OR WRITE

POST ELECTRIC CO., Inc

30 East 42nd St New York



-ELECTROTHERMIC-METHODS

IN THE TREATMENT OF NEOPLASMS ANO OTHER LESIONS WITH CLINICAL AND HISTOLOGICAL OBSERVATIONS

The abo e is the title f nampot t rt l witt n by William L Cla k Vi D J D ugla Morg n M D and Lugene J Asia M D



asem at the I rual

WAPPLER ELECTRIC CO Inc.

LONG ISLAND CITY N Y 173 EAST 8 th ST N.Y CITY



Ask Your Fellow Practitioner Who Is Using Quartz Light

THE great number of physicians sana tona and hospitals throughout the world who are using the ALPINE SUN and KRO MAYER LAMPS gives testimony to their value as a therapeutic adjuvant

The results that we get by using an artificial source of Ultra Violet Light are so marked that sometimes we wonder

J Am M Ass Nov 22nd 1924 Vol 83 No 21 page 1637

RantSt37

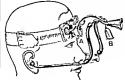
HANOVIA

CERTAINER OF MEM P IN THE PARTY OF THE PARTY

1251

Head Stethoscope for Hearing and Counting of Foetal Heart Sounds

M defrD Fred kHFII I w Ctv low



In gn 1 wyth those pe mitth HII and DLe Hd St those pe and n be I hed with trighth bd band

The map verse to the tofe delta per graph family the determinant of the delta to the head of the delta to the head of the delta to the

htm on med I ypocd

F Illd ac pt dt h q see Sept 250 Am ca J m I of Ob t t d Gynec logy

M d by
V MUELLER & COMPANY

gd n A nu V n Burn nd H n St t CHICAGO ILL



Harold

Standard Deep Therapy Lamp

\$12 50 Brings It to You ONLY \$72 50 Less 10% for Cash

The henefits de wed ir m the employm at of Light Th

G time losed lass 6 d h kf first ym t E losed d C O D f est m Piese d C O D f est m O ty Sta d Doep Th y Lump lift as I tasfod with if Lam se so y let be [icd es

C y

Baumanometer

"STANDARD FOR BLOODPRESSURE"

It's Confidence that counts—

your patient's confidence in you—your confidence in your instrument *** No more of those lingering doubts—you know you are right every time with a Baumanometer Approximations and inaccurate measurements have no place in modern practice

Pardon my curiosity Doctor but you know I am a consulting engineer and that seems to be a much more accurate instrument than some doctors use for bloodpressure Yes they all squeeze the arm but the Baumanometer is in a class by itself It s the acknowledged standard of the profession Desk Kit bag Pocket Wall and Cabinet Models carried in stock by your dealer W A. BAUM CO. INC. 100 FIFTH AVENUE NEW YORK

Head Stethoscope for Hearing and Counting of Foetal Heart Sounds

Mad fo D Fred ikH F II I wa C ty I wa



Oed n A nu V n Bu n nd Hono St

twthmybe | pped

d tech a see Sept 10 LfObtt d Cynec logy M d by

V MUELLER & COMPANY

CHICAGO ILL



Harold

Standard Deep Therapy Lamp \$12 50 Brings It to You

ONLY \$72 50 Less 10% for Cash

ff cht Th

Stat City

[26]

Baumanometer

"STANDARD FOR BLOODPRESSURE"

It's Confidence that counts—

your patient's confidence in you—your confidence in you instrument *** No more of those lingering doubts—you know you are right every time with a Baumanometer Approximations and inaccurate measurements have no place in modern practice

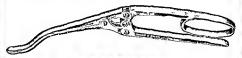
Pardon my curiosity Doctor but you know I am a consulting engineer and that seems to be a much more accurate instrument than some doctors use for bloodpressure

Yes they all squeeze the arm but the Baumanometer is in a class by siself it s the acknowledged standard of the profession

Desk Kit bag Pocket Wall and Cabinet Models carried in stock by your dealer

W A BAUM CO INC to Fifth A we have a feet of the profession of the profession of the profession when the profession we have a profession of the profession of the profession of the profession of the profession when the profession of the professi

Improved Payr Stomach Resection Clamp



HAND FORGED

Blade, 6 Inches

Length Over All, 14 Inches

Price \$25 00

SHARP & SMITH

General Surgical Supplies

65 E Lake Street B tw en W b h Av nd M hig n Bl d CHICAGO ILL

The New Method of Blood Transfusion

So simplified that this operation now becomes one of minor procedure

THE difficulties bitherto associated with the transfusion of blood have been eliminated in the new method perfected by Dr. Harry Koster of Brooklyn N Y Its simplicity and effectiveness recommend it to every practitioner

By this n w method 1000 c c. a e tr sfer d in les than eight minutes n blood is lost th operatio is of ubject to mis takes and re ctions d not occur The detailed d antages of th

p per read by Dr kost b fo o of the Med cal Associations be dfr copy mg the po win h is printed for y ur onven e

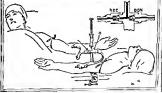
y es wild to post in pp to type rest de real supplied alor Month tu dby

J SKLAR MANUFACTURING CO

133-143 FLOYD ST

BROOKLYN N Y S growl 5 pp

1281



AFTER THE OPERATION



EXPOSURE of the open wound to Ultra Violet Radiation every forty hours will shorten the convalescence period twenty five percent

This was clear ly demonstrated by a Massachu setts Hospital in tests covering one year

Send for our Bulletins on Quartz Lamp Therapy and Technique

Burdick Cabinet Company

250 Madison Ave Milton Wisconsin

The Light Way Is the Right Way

We Have the Honor to Present to You

a newly perfected Ariesthetizing and Tonsillectomy Outfit of outstanding qualities

It is the www So se to 460 which i 1007 cff. nt i Off. I nable a d Hospital to be a se

(2) Sn.p-ft B til Hold is do wa ssith ser ws d clamps Set bott! pl pck it off—th.t all {Pt t pc dig}

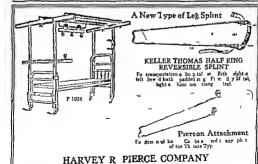
(3) I resoure to told " i ir doc or holist bed against the pump No tran a pump No set ty al 1 d

Fo th rest pl se k f pect l f ld which go ex i det l f this dm rable out fit adiaba s comb nato f fit dhosp tal use

PHILADELPHIA

C M Sorenson Co, Inc (Q = 60 PI) Similar (N m Tim 5)

Min [Sw Spoulst Ch Als 4 PI m 1 4A4, 1 0 St.



Surgical Instruments

128 SOUTH 19th STREET



Specially Designed for the Specialist

THIS instrument has been devised hiefly as a sponge holding forceps for applying medication to the cervix uters and vaginal walls as well as a dressing forceps for use in surfiery in this region

The shape and taze of the instrument permit the forces to be used through any speculium of average size without interfering with the view of the operator thereby overcoming form or objections that the hand of the operator was completely pronated or supmated or else placed in an awkward position. In using the Crance's Forces the hand of the surgeon is midway between pronation and supmation and is entirely out of view of the operating field.

D Many Angular III and Sporter M Idang Dr. Grand By Many Angular M Idang Dr. Grand By M. D. Dr. Grand By M. Dr. G

kny Scheeter Instruments are not only the result of careful design. The skill in manufacture and the selection of only the best of a v m. ...



THE KNY SCHEERER CORP

119 Seve th As n Dept 104



N w Yo k N Y

We Have the Honor to Present to You



a newly perfected Anesthetizing and Tonsillectomy Outfit of outstanding qualities

It 1 th Sorense to 460 which to for P table i Hospital 100° effic se because

(2) Snap-fit Bottl H ld rs d sc ws d lamps Set bottl 1 pl t ff-that all (P t t pends g) (3) Presure co t 1 d is air does hold th 1 guest th pump N stra o

en 1 d Adj t O tht

th est place kf pecilildr

i ho s combinat [ff dhospital 444 J k on A nu (Q ↔ bere Pl S5 mi / m Tim Sq) C M Sorenson Co, Inc Long 1 1 nd City NwY k Special t Ch Ad 42 f



Pierson Attachment be credt sysplit m s Type

HARVEY R PIERCE COMPANY Surgical Instruments

128 SOUTH 19th STREET



Surgical Dressings

B tter results and fewer infect o r tine Th e c d by u g wet d ess g soft pl bl IMPERVIOUS CILLLOID Tissu is a most s ti fact ry occlu e c for all wet dressing

31 00 St d d (lwught) llo yd 1 50 Stad dH v (d bl w aht) o 4 rd Sp c la es and p cesí hi ptal

11 75 Sta dard Perf t (d bl weight by) At All Supply Hous

Sambl Ra #

THE CILKLOID COMPANY MARSHALLTOWN IOWA

Seven Section Skull

Disclosing everything of intie too the Ey Ear N and Thro tope oil t and t the Canal surge n



T thinates sinuses d sept ma e disclosed by the section n th m dan plane Th sterio

E B MEYROWITZ SURGICAL INSTRUMENTS CO AZO FIT h A



You Want Perfect Sterilization

m Old H pki Hos pital B ltim H ptal C -such as these hospitals ave to or Dy int City

You have the certainty that you are safe when you select AMERICAN

Motor tal Phil d l P tubureb

Sterilizers The fact that hospitals such as these

have reordered AMERICAN equipment time after time proves that they are satisfied that they have the best

AMERICAN Steriliz is ha e alway been onstruct d entirely of b once bra s and c one the evel shor High stand ds of con tructio and the u e of exact pess s and v cu ms ar jou ssur ce I perfet ter 1 1

Well f C log S 23F

AMERICAN STERILIZER CO Erle Pa Originators fith ou m-p easur m thod of dess g eril as so

En t rn Sales Office 200 Fif h A N w York City



AMERICAN

Designed to meet the most

the most exacting demands

THE Bard Parker knife combines the shape and balance of the ardinary scalpel with the shappness of a razor The surgeon does not have to accustom himself to the use of a new tool

The handle is solid with no springs entitles or other locking devices to get in the way or to make sterilization uncertain. A dull finish prevents the handle from slipping when in contact with wet rubber flows.

The surgeon possessing the two Bard Farker handles and the seven patterns of blades is en abled to perform almost any operation formerly made with the wide varieties of solid kinfe.

Moreover with a Bard Parker knife the sur geon has a new keen blade for every opera tion while saving half the cost of resharpening an ordinary scalpel

Handles \$1.00 Blades half-dozen per package 75c Assortment of one No 4 handle and one half dozen each of Nos 20 11 12 13 Blades \$4.00 In pocket size leather case, \$5.75

BARD PARKER COMPAN'S Inc 150 Lef y to Street N w York N Y IMPROVED

KING HEAD LIGHT

DR GEORGE S RING



D gnedf r the Su geon

Most powerful sutgical head light has a standard 75 watt hitrogen bulb Especially useful in gynccological rectal obstetrical or deep abdominal work

J E Kennedy & Co
su gical sastrum at and southerny
sol en 1 20:d for N w Tark

Binder & Abdominal Supporter



Base

For Men, Women and Children

Fo Pto Hrn Pegnny Obesity RisardS Il Artelton Floating Kotay High d Low Ope ti

Askf 36-page III of Fld Mail rife filled Philadelphia al -with 24 hours.

Life I Steam MP



Let SIEBRANDT'S



UNIVERSAL Fracture Appliances

Aid You in Your Fracture Work

They are modern fool proof appliances comfortable to patients Approved by lead ing surgeons Illustration showing results obtained with pressure plates

Send for Descr Dt L teratu e



R SIEBRANDT MFG CO f M dern

KANSAS CITY MO

B-D POCKET MANOMETER

Hand Graduated Scale

I RECISION type mercury Manometer constructed so that it may be carried in the pocket or in a medicine bag. Made with full size hand graduated glass tube mounted on metal base with folding metal standard. Manometer tube is provided with metal shield which screws firmly to base preventing possibility of breakage Inflation system is identical with that supplied with the office type B D Manameter



Sole Leather Case

The Pock t Type Mannet a sol 1 ath r case tre o tht may be e m d The case dmybeer dinth meder bas

B D Pock t Typ M 25G281-300 mm capacity 25(-282-250 mm caps try 25(283-200 mm caps 1 y pec leasy term

FRANK S BETZ COMPANY NEW YORK DAI OVOIMAN

CHICAGO

4 St 48 h S

[35]

PILLING-MADE







New Catalog Ready April 1st

•

Loui H.Ci. / Specime Collector

The George P Pilling & Son Co

N E.Co Ar h nd 23 d St te PHILADELPHIA U S A

The Specialist and The General Practitioner both find 'E S I Co Empirity

invaluable in diagnosis

Ore mpl tel t ! d u h mport t
at ument a H lme N ph y goscot S ll

Ill m ted Ey Spd Tagu Dep so M th Gag V g 1 Sp cui R t 1 Spe 1

N th Ed t of r

Electro Surgical Instrument Co

\(\lambda\)-RAY CATHETERS and other

UROLOGICAL INSTRUMENTS IN GUM OR RUBBER

A k Your Dealer for EYNARD INSTRUMENTS

Illustration on reque t

G R BARD Inc 37 E 28 h St N w York



BOLEN Supporters and Binders

P tOp tv Sa o-lli e Stras M t m ty G t optos

len Manufacturing Co

T 34 1



Let SIEBRANDT'S



UNIVERSAL

Fracture Appliances Aid You in Your

Fracture Work

They are modern fool proof appliances comfortable to patients Approved by lead ing surgeons Illustration showing results obtained with pressure plates

Send for Descr pt L terature



R SIEBRANDT MFG CO fM d m

KANSAS CITY MO los New N Ison Bide

B-D POCKET MANOMETER

Hand Graduated Scale

IRCCISION type mercury Manameter constructed so that it A may be carried in the pocket or in a medicine bag. Made with full size hand graduated glass tube mounted on metal base with

folding metal standard. Manometer tube is provided with metal shield which screws firmly to base presenting possibility of breakage Inflation system is identical with that supplied with the office type

B D Manameter

NEW YORK

43 4 hS



Sole Leather Case The Pock t Type Ma mt 1

frahda soll the case which the e t utfit m v be d m y be carred namedica be B D Pock Type M

25G281-300 mm capacity 2SG282-250 mm capacity 25G283-200 mm capaci y iπ pec leasy term ad wh

CHICAGO

FRANK S BETZ COMPANY HAMMOND IND

[35]

Waterproof



gr asy scalp

Flexible

THE LIQUID ADHESIVE

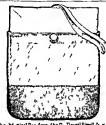
SURGEON'S ADIII SIVI

Fa Sup to For Attaching Surgical Dressings to the Skin Does not evaporate rapidly from the bottle. The dressing is pecled off like adhesive plaster.

Buy Through Your Dealer

in c

DUO LABORATORIES Inc



This bd missalling deris 15yD Doogal Blancil N w Yerl City, he tied be gum alope hand t siece, 8 is not \$8 is three clopes are fit eds be te pade hand from t will and Dr Jamedi has four it him widnes bit all pied to the intential to more refunding in belong a would be large to field fopper. The hard was testing the bid fopper to be the field and Dr Jamedi hand the first better the big to the day to first hand to be the first

Geo Tiemann & Company
107 E 25th Stre t New York N Y

Smith Bone Clamps

NEW BRUNSWICK NEW JERSEY



N Screw Are U ed
The seed mps a pply a
want in ho in the te
mat by yoth lamp
f d Thy a
e slyappled a dq ck
lip im ed eq mo
s w and the gis
dri into the boe

SMITH BONE CLAMP CO W WIN N

Gelpi s Perineal Retractor with LOKTITE With LOKTITE Price Strip Strip

Will n t 1 mp or alip out of posit on 1 ke like old course toothed in his som ratchet

Fred Haslam & Co Booklyn N Y

"VIM" Stainless Steel Needles for Your Dunn Local Anaesthesia Outfit



The MacGregor Instrument Company
Needh m 9

M ss hu tts

F 36 1



An Invitation to Physicians

PHYSICIANS in good standing are cordially invited to visit the Battle Creek Sanitarium and Hospital at any time for observation and study or for rest and treatment. Special clinics for visiting physicians are conducted in connection with the Hospital Dispensary and various laboratories.

Phys ams n good stand gre iways welcom a gue ts and accommod tons if the who desire for make a proj ged tay refund to the mod rate fix to the who are to make a proj ged tay refund at the maximum and the max

An illustrat d booklet I il g f th Origin, Parpose ad M thods f th anit tut n, copy f the curre t MEDICAL BULLETIN an uncera at f lunes will be sent free po requ t

THE BATTLE CREEK SANITARIUM
Room 381
BATTLE CREEK MICH



S H CAMP & COMPANY in JACKSON, Michigan are experienced in co-operation with surgical specialists when post operative supports are required

There are available in stock at Headquarters in larger cities a variety of patterns of sup porters and binders produced by S H CAMP & COMPANY under the direction of widely known professional men

The results of fifteen years of intelligent effort are at the disposal of your patients at your direction or the staff will co operate for special work Address General Offices S H CAMP & COMPANY, JACKSON Michigan



For Human Inhalation

NON-FREEZING NITROUS OXID

Two g tht a p as t post b to m k
this g with p ent d y entif kn wiedg. Thy
the fruit of experience gases d as manny y ars f ffort to prod
th p tof g Ab!t I nimes in very department
f p od ein no dingold t an the next nam f th

And N F ring Ntou Oxed d n t f Apt tedpoc limin t liwit w pording manufet Therisan n df h twiter bg towict i main

Petrolagar_



HABIT TIME

CREATING the habit of a regular bowel move ment is undoubtedly the most important factor in the treatment of constipation

PETROLAGAR affords the physician a method of establishing the normal function. In this emulia feation of 65 per cent mineral oil with agar sgar the action is entirely mechanical, the dosage can be gradually dumin hed and eventually discontinued.

In the bowel the oil of PETROLAGAR is minute ly diffused through the local mass giving perfect lu brication and diminishing the possibility of leakage

PETROLAGAR does not contain any fermenta tive gums. It is a mechanical emulsion which has a purely mechanical action on the bowel.

It does not establish the cathartic habit but replaces the habit forming and unitating cathartics

PETROLAGAR has be no a cepted for New and Non Off 1 Remedia by the Count 1 on Pharm cy and Chimity of the Amuscan Medial Acciation

Send outer for int ting to the on the physical are of the bow lentitle did by time. You my he appy a without obligation

DESHELL LABORATORIES, Inc

4383 Fruit & A LOS ANCELES CAL BROOKLYN N Y

589 E III St CHICAGO II.I.

Mill b Nea est Add

Deshell I. borstori s Inc. Dept. S

G oil m n - Kindly send me witho t obligation a c p) of the t eatise. H b t Time

Add ess

Mulford Antistreptococcic Serum

Polyvalency

Antistreptococcie Serum Polyvalent-Mulford is a highly poly alent serum from the blood of horses which ha e been immun zed agrinst represe tati e strair a comprising both hemolytic and non t emolytic streptococci

Polyvalent

Standardization

Antistreptococcic Serum Polyvalent-Mulford is tandardized by the applu tination method By maintain ng a fixed standard Mulford Antist epto coccie Serum Polyvalent has not luti nated every strain of the streptococcus tested in the Mulford Biological Laboratories

Uses

Anti trentococcic Serum is indicated in erympelas, sept cemia, prem a sapre mia due to streptococcic infection streptococce pneumonia and the streptococcie complications in pneu mo la and scarlet fe er in puerperal aepsis, in p) mis and septic mis cond t one in which the streptococcus is known to be the offending organism

Dosage

kolmer points o t that in true streptococcsi infection the couct are I kely ah fu dun the blood

How Supplied

H K MULFORD COMPANY PILIT ADELPHIA U S A



They just love them

these fascinating foods!

to little tat a egld to oby when you t if them to est Puff d Gr pe

OUAKER Puff d Wh t nd Puff d Re tast the co fe to wh h It ; ca be served so many differ t ays that chm alpomse as rprus PfidGa em to tate bett reach, t me they re offe d am the dw th sugar nd ere m th I can o stewed fu or flo ted in bo vis of mik

M at 17np tant 30 know th t

d I tate th



You your elf docto will joy Puff d G s b that breakfast a d to th q ck. wh h s all y u lave time to on b syd ys Jutt b dimea bowl f Puffd What or

Puff d f td amlki restful I p

QUAKER DATS COMPANY

For internal use as a urmary antiseptic or otherwise

Neutral Acriflavine Abbott

Let it be the reliable Abbott quality drug always when prescribing or dispensing A drug of high quality Made under heense from the Chemical Foundation line. May be given in the plain tablets but preferably in enteric coated tablets each containing Neutral Aeri flaunc are 1.



 Phy (lo Pr)
 Pi Bot 1 f 20 g bl t
 \$ 65 H 1 25 g

 Pi i Bot 1 f 20 g bl t
 \$ 65 H 1 25 g

 Pi in Bot 1 f 100 g bl
 2 60 H c 1 ac 25 g

 E er) Co ted Bo el f 100 g bl
 2 40 H 1 ac 25 g

THE ABBOTT LABORATORIES
4753 Ravenswood A e Chicago

17 8 535 M 1 8 34C [1] 4

F Pri in Ca d Applyt O Can din B h 221 W Rihm dS Tor n

Neosalvarsan

"The Dependable Ongmal"

Made in th Unit d St t in strict conformity with Ehrlich poce es and formul s Governm at te ted

Ou obl gat n of re pon ble helpfuln a towards pra t non nd p lient i being fulfilled th ough th m d um of low ed price of N o lvarian posibl by qu nity p oduct on

1	0.15 gram	5 60 pe 65	mpul
L/	0.45	80	
νì	0 9	90 1 00	

\$1,00

Neo alvarian the d pendabl original I unsurp sed in low toxicity and I uneque Bed in therap utf if city a The fits have be and monsters d through ext a fee u during the past this ten 7 a s and constitute a unique record

Tri logis and at filed wa 1 moules proper solven for 1 trave one modifications. Bo of 5 mpules 10 c.es h

H-A-METZ LABORATORIES IN



Do you know

that outs are now a quickly cooked food? QILQuit cook in 31 5 m 12

TOTO cat solish. —y is c gt it it do con for yeas as the de is atter for the dy y is a st hand it is a directly in the solish control in the solis

Oats labnretad The lydfir nee stit Qik Qukere ok fit Tokniitgeers Quk Qkerad Qaker Oat



Cooks to 3 to 5 minut









TRIBRAMESS QUOD

Genume Fatthorn Case Records
M 7 to 14 used b 26 by 5 wrn h. In hom
Leave Record n.

AMERICAN COLLEGE OF SURGEONS
1. 10 required for perm 20 word 1 b quilty
1. 10 required for perm 20 word 1 b quilty
2. 7 road on 12 he popt blo wry more
2. 7 road on 12 he popt blo wry more
2. 8 road on 12 he popt blo wry more
2. 8 road on 12 he popt blo wry
2. 10 road on 12 he popt blo wry
3. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he popt blo wry
4. 10 road on 12 he

THE FAITHORN COMPANY

THE FAITHORN COMPANY

THE FAITHORN COMPANY

Storet Ch. g.

The New York Post-Craduate Medical School and Hospital

Courses in

SURGERY, GYNECOLOGY, and UROLOGY

Are Open to Qualified Physicians

Fr nformat n wrte to

THE DEAN 303 East Twentieth Street New York City

RADIUM RENTAL SERVICE

Radium loaned to physicians at moderate rental fees or patients may be referred to us for treatment if preferred

Careful consideration will be given inquiries concerning cases in which the use of Radium is indicated

BOARD OF DIRECTORS

Will m L B um M D N SportH n y M D F d i k M ng M D

Lou E Schm dt M D Th ma J Watkin M D

The Physicians Radium Association

1114 Tower Building 6 N Michigan Ave

Tiphon Cent 12.68-2.69 CHICAGO, ILL Will m L. Bown Man re



Most Generally Useful of the Chlorine Antiseptics

ITS BROAD application to many fields of surgery is based upon

- Its non irritating qualities as contrasted with the irritating effects of the ordinary Dakin s solution and other chlorine antiseptics
- 2 The ease with which it may be used A correct Dakin can be made in one minute Just add water No testing necessary
- 3 Does not inhibit leukocytosis and phagoeytosis
- 4 May be used full strength or diluted to suit specifications
- 5 Its stability and uniformity of hypochlorite content (Na OCI, 4 05%)
- 6 The rapidity with which it dissolves necrotic tissue and the benign influence it exerts upon normal tissues.

ACCEPTED BY A M A (N N R)

If rite for sample and literature to

BETHLEHEM LABORATORIES, Inc

SQUIBB'S ETHER IS THE SAFEST, MOST USEFUL and ECONOMICAL OF ALL THE ANESTHETICS

Ether Squibb

made especially for anesthesia is the first other ever offered to the medical profession for surgical use

It is made, and always has been only in the Squibb Laboratories, in stills and by a cocess invented by Dr E R Squibb and which are not used by any other manufacturer

The uniform purity and strength of the Squibb Ether insures an efficacy upon which the surgeon and the anesthetist can rely implicitly

The small quantity necessary for an anesthesia renders the Squibb Ether not only the safest but also the most economical

Chloroform Squibb

ts marketed only under the Squibb Seal and Guarantee

To prevent spontaneous evaporation and decomposition, as well as to provide easy and economical administration, as the upplied only in anther colored bordes with a strew cap from which without removal of the cap the chloroform may be dropped

è

ERSQUIBB & SONS, NEW YORK MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1850



Most Generally Useful of the Chlorine Antiseptics

ITS BROAD application to many fields of surgery is based upon

- Its non irritating qualities as contrasted with the irritating effects of the ordinary Dakin's solution and other chlorine antisepties
- 2 The ease with which it may be used A correct Dakin can be made in one minute Just add water No testing necessary
- 3 Does not inhibit leukocytosis and phagocytosis
- 4 May be used full strength or diluted to suit specifications
- 5 Its stability and uniformity of hypochlorite content (Na OCI 405%)
- 6 The rapidity with which it dissolves necrotic tissue and the benign influence it exerts upon normal tissues

ACCEPTED BY A M A (N N R)

Write for sample and literature to

BETHLEHEM LABORATORIES, Inc 300 CENTURY BUILDING PITTSBURGH PA

urgery, Gynecology and Obstetrics

BITH

International Abstract of Surgery

Official Journal of the American College of Surgeons

CHI 71 -1

EDITORIAL STAFF

JAN 0 1930

FOR AMERICAN COLLEGE OF SURGEONS

WILLIAM J MAYO M.D Rochester

ALBERT 1 OCHSVER M.D Chicago HARVEY CUSHING MID Botton E WYLLYS ANDREWS MD Chicago GEORGE E ARMSTRONG M.D. Montreal IOHN L PORTER MD Chicago I BENTLEY SQUIER M.D., New York

1051N M T FINNEY M D Baldmore GEORGE W CRILE MD Cleveland THOMAS I WATKING MLD Chicago RUDOLPH MATAS MID New Orleans FREDERIC A BESLEY M.D. Chlcago WILLIAM R. CUBBINS M.D. Chloro GEORGE E. DE SCHWEINITZ, M.D. Philadelphia

FOR THE BRITISH EMPIRE

SIR ARTHUR MAYOROBSON KBE CB CVO D.Sc., London SIR BERKFIEY MOYNIHAN LCMG CB Lords SIT HAROLD I STILES K.BE FR.CS Edinb rob I RUTHERIORD MORISON MB FRCS Ne castle-on Type THOMAS W EDEN M.D FR.CS. London SIR WILLIAM I DEC. WHEELER M.D. FR.CS.L. Dublin

FRANKLIN H MARTIN M.D., MANAGING EDITOR ALLEN B KANAVEL M.D. ASSOCIATE FORMS

EDITORIAL AND BUSINESS DEFICES S4 Ear Frie St., Chicag 12 ois, U S. A. PUBLISHERS FOR CREAT BRITAIN BUTTON Tradel & Con. & Hearless & Covent Ca & n Load W C., & shad

United States and Can. de \$12.00 Forts n. \$14.00 Copyrigh 1925 by The Surgical P blish! & Company of Chicago. e No 2-, 1913 at th posterior at the so Ill, unde th Ac of Congres M h 3 1879

Specify—

FRESH

MATERIA

PERFECTE

PROCESS

Pituitary Liquid "Armour"

and be sure of your product

Free from preservatives physiologically standardi..ed of uniform activity A reliable oxytocic, has given splendid results in post partium hemorrhage and after abdominal operations to restore peristalsis

% c c, ampoules obstetrical 1 c € ampoules surgical Boxes of Six

Write for our booklet on the Endocrines

ARMOUR E COMPANY

OMPANY

NOURISHING FOOD DRINK FOR SURGICAL PATIENTS



The ORIGINAL-Avoid Imitations

The flavor of Horlick's Malted Milk is very appetizing to surgical convalescents and its ease of assimilation enables them to appropriate its nourishing food value

> Write for literature on its surgical uses and advantages Sampl prepaid

HORLICK'S MALTED MILK CO

inted by R. R. Donnelley & Son Co., t Chicago, Himms, U. S. A.

urgery, \mathbf{G} ynecology and Obstetrics

WITH

International Abstract of Surgery

Official Journal of the American College of Surgeons

GIFT

EDITORIAL STAFF

193**0**

Lond n.W C. Earland

FOR AMERICAN COLLEGE OF SURGEONS

ALBERT I OCHSNER MD Chicago HARVEY CUSHING MLD Bo ton E AYLLYS ANDREWS, M.D. Chicago GEORGE E. ARMSTRONG M.D. Montreal IOHN L PORTER MD Chies o 1 BENTLEY SOUTER MD New York

WILLIAM J MAYO M D Rochester TOWN M T FINNEY MD Bultimore GEORGE W CRILE M.D. Cleveland THOMAS I WATKINS NLD Chicago RUDOLPH MATAS M.D. New Orleans FREDERIC A BESLEY MD Chicago WILLIAM R. CUBBINS M.D. Chlesgo

GEORGE E. DE SCHWEINITZ MD Philadelphia

FOR THE BRITISH EMPIRE

SIR ARTHUR MAYOROBSON ABE CB CVO DSc London SIR DERKELEY MOYNRIAN KCMG C.B., Lords SIR HAROLD | STILES K.D.E. FR C.S Edinburgh] RUTHERFORD MORISON MB. FR C.S. Newca de-on Tyme THOMAS W EDEN M.D., FR.C.S. London SIR WILLIAM I DEC WHEELER MD FR.CSI., Dublin

FRANKLIN H MARTIN M.D., MANAGING EDITOR ALLEN B KANAVEL, M.D., ASSOCIATE EDITOR

EDITORIAL AND BUSINESS OFFICES 54 Eart Edu St., Chicag Winste, U.S.A. PUBLISHER'S FOR CHEAT BRITAIN BUTLEY Tindel & Cor. 8 H art tta St.

Pablob d Monthly As and 5 for

EVERY SURGEON NEEDS



BRADY'S POTTER BUCKY DIAPHRAGM

No surgeon should operate without the best information on internal conditions that can be secured only when a Potter Bucky D sphrages a used in the X Ray Labouatory. You should insist on your X Ray man at ica, 1 TRY INC one to source hauseff and yourself of the truth of this

G was especially fine detail on heavy parts such as space kidney gail bladder pelves are impossible to seen in any other way. THE GREATEST AID TO FINE RADIOGRAPHY EVER PRODUCED. The smallest nearbests and most accurate Duky mad-

New model with many improvements, price \$250.00 less 10 per cent cash discount for prompt payment. Try t and be convinced

EVERYTHING IN X RAY SUPPLIES

arry a larg enork of all X Ray ampelles it is disp Duplitated Plans. The ea. I tensitying Engang, Developer I Firm Moon a. D. Topi g Tanga, Coolide T bea, etc. G t on Prop. Lit and Discours, before beque,

GEO W BRADY & CO., 756 So Western Ave., Chicago El

In re

ETHYLENE ANESTHESIA

Owners of the Gwathmev Models never experienced a static spark nor any signs of danger

Ask us or them for reassurance.

THE FOREGGER COMPANY, INC. 47 West 42nd St - New York NY



CONTENTS-JUNE 1925

735

737

740

743

54

760

TWENTY YEARS OF SURGERY

SURGERY GYNECOLOGY AND OBSTETRICS TWENTY YEARS (ND Franklin II Mortin WD F 4 C S Cli ago

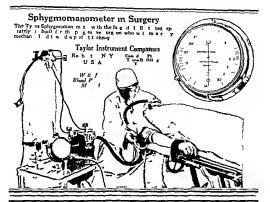
PRIGRESS OF SURVEYS IN THE L. ST TW. DECADES. II High. J. May. M.D. F. 4 C.S. R. cheste, Minnesola.

THINK STARS OF SER ERY AND AN INDEX. Sum e L. Ko h. W.D. Cliuk

ORIGINAL ARTICLES

- TERRECEOSIS 5 THE TONCE J M T FIREY MD I ICS and J M T I II nev Jr Balt m
- 2 REMARKS (N THE TE HALLE OF CASTRECTORS I deliall VD F 1 C.S. (Hon.)
- 3 THE INJAMENT OF CENER LIERTONIES (& I I notice & M.D. FILS Mo-

TOWN THE OPPOSIT FYE



ELLIOTT SIMPSON

OBSTETRICAL BED

AN IMPROVED TWO SECTION BED



THE Elliott Simpson Bed is built in two sections one of which may be raised by means of gears. Either the Trendelenburg or reverse Trendelen burg postures may be easily attained

For natural accouchement this model is recognized as one of the most satis factory. Before being elevated and when covered with sheets it has the appearance of an ordinary bed and does not frighten the patient.

Delivery is accomplished in the easiest manner possible as the adjustability of this equipment permits a comfortable position to be assumed by the operator

Wif omplied cipt n

THE NAX WOCHER & SON CO
Obstetrical and Gynecological Instruments

29 31 West Sixth St

Cincinnati Ohio

Surgery, Gynecology and Obstetrics

WITH

International Abstract of Surgery

Official Journal of the American College of Surgeons

71 -1 m

EDITORIAL STAFF

JAN 3 1930

FOR AMERICAN COLLEGE OF SURGEONS

WILLIAM J MAYO M.D Rochester

ALBERT J OCHSNER MD Chicago
HARVEY CUSHING M.D., Borton

JOHN M T FINNEY M D Balamore GEORGE W CRILE M D Clereland THOMAS J WATKINS M D Chicago RUDOLPH MATAS M D New Cricans FREDERIC A BESLEY M.D Chicago WILLIAM R CLIPBINS M D. Chicago

GEORGE E. DE SCHWEINITZ M D Philadelphia

FOR THE BRITISH EMPIRE

FRANKLIN H MARTIN M.D. MANAGING EDITOR ALLEN B KANAVEL, M.D., ASSOCIATE EDITOR

EDITORIAL AND BUSINESS OFFICES \$4 East Ests Sea Chicago Illiants U S A.
FUBLISHERS FOR GREAT BRITAIN Builliere Tushall & Cox, 6 Rearieus Se, Cove Ga deer, Lond W C., England

Published Monthly Annual Subscription United Signes and Canada \$12.00° Foreign, \$14.00° Correlata, 1923 by The Suspend Publishing Company of Classes.

Entered as accondictars matter bit at 22 1913 the post of our Chicago Illa, under be Act of Congress March 3 1879

EVERY SURGEON NEEDS IT



BRADY S POTTER BUCKY DIAPHRAGM

No surgeon should oper te without the best information on laternal conditions that can be secured only when a Potter B ky Dusbragem is used in th X Ray Laborat 17. You should finant on your X Ray man at it. ITRYING one to saure hunself and yourself of the truth of that.

Gives especially fine detail on beavy parts such a spin kidney gall bladder pelvis etc. impossible to secure in any other way. THE GREATEST AID TO FINE RADIOGRAPHY EVER PRODUCED. The smallest meatest and most courst is by prade.

New model with many improvements price \$250 00 less 10 per cent cash discount for prompt payment. Try it and be convenced

EVERYTHING IN X RAY SUPPLIES

mak of all X R y supples, including Duplitated Finn, Pi ten, I teoutying Screens, Develope ns, O etapung Tanks, Cool of T bes, ric. O ou Price Li d Discous jed paying layers.

GEO W BRADY & CO, 756 So Western Ave., Chicago His

In re

ETHYLENE ANESTHESIA

Owners of the Gwathmey Models never experienced a static spark nor any signs of danger

Ask us or them for reassurance.

THE FOREGGER COMPANY INC. 47 West 47nd St - New York NY



CONTENTS-MAY, 1925

	ORIGINAL ARTICLES	
ī	The Substitution of the Erector Spin ϵ for Paralyzed Cluteal Muscles an Operation for Stabilizing the Hip $PIdipH$ Areuscher MD F 1 C.S. CI_{trago}	59.
2	GYNECOLOGICAL CONDITIONS TREATED WITH RADIUM NEONE OR COMBINED WITH SURGERY REPORT OF 156 CASES William Sid by Smith M.D. F. 1 C.S. Broaklyn New York	50
3	MOVABLE KIDNEY Cla les P Mathe W D San Francisco Cal farnia	60
4	A SUCCESSFUL CARDIORRHAPHY Daniel L. Magu e M.D. F.A.C.S. Ch rieston Sauth Carolina	62
5	DRAINAGE OF THE THORACIC DUCT IN PERITONITIS Lo 15 D McGuste W D Rochester M nnesota	620
6	SURGICAL COMPLICATIONS OF DIABETES UNDER INSULIN TREATMENT Leslie 7 Gager M D New York	630
7	Torsion of the Great Omentum Th mas F Mullen MD F 1 C.S. Pacatello Idaho	63
	SUPERPETATION A PROBABLE CASE I ha M Money WD F 1 C C 14	٧3,

646

Crhbs M lithen M D a & Lester R Whitaker M D Baston Massachusetts

KIELLAND OBSTETRIC FORCEPS



The use present ad fin t ad antage in d livering bab es when th had i high a d when the occ put is n t n th anterso half fith pelvi

R tation s asily compl hed enthout danger

Bearings angle from he many might

They do not ! p because the is an equal distribution of pr sour all over the kull The unroduct on of the a ter or bill accomplished siyed with the ger flar ration.

The users of the Kielland to cept ha expressed favor ble prion a dith majority f them diela the new in trument to be a definite advance in bitetries

S ld by

CHARLES LENTZ & SONS

S n 1868 Manuf tur r of High G ad Su r col Inst um nts

33 South 17th Street

OBSTETRICAL BED

AN IMPROVED TWO SECTION BED



For natural accouchement this model is recognized as one of the most saits factory Before being elevated and when covered with sheets it has the appearance of an ordinary bed and does not frighten the patient

Delivery is accomplished in the easiest manner possible as the adjustability of this equipment permits a comfortable position to be assumed by the operator

tf compltd ptn

Obstetrical and Gynecological Instruments

29-31 West Sixth St

Cincinnati Ohio

PHILADELPHIA

Hospital sterilizing safety for the specialist

The risk in usr, partly terilized goods in a rg al and speciali to work 1 lust as great in clinics and mall surge les as in lare e institutions

It m re than pays t have a wife m run of safety on your sife no natter wh re you t ork

The LANTER 010 combination given y u that full hospital protiction. It has a d x 19 utoclave two pallon n essie, wat sterd er tirce ona t still (coll nater) nl a large maten ence al te was and newate surgemen

> Oli-Ti p mo moderal

CASTLE

CONTENTS-MAY 1925 - CONTINUED

ORIGINAL ARTICLES C	01	II vt ED
---------------------	----	----------

10	GASTRIC TETANY A FATAL CASE	Ireing Busch	BS	II D	Very Fork		65.
	HEMATON ENOUS O TENNA FISTIS	REPORT OF A	C sot	P 1F =	t Cases Il Milliam 7	Daran	

	WD I ICS and I sie Brown WD Year fork
12	TED W TRACTERS AND DISLICATIONS TRESTMENT AND MALLES OF 19 (1875 4
	Strict of Control New York I can be Con U.D. Fronting V. 1 h

13	If a waturia	A CLINICAL STUDY BASED ON 433 CO SECUTIVE CA TS	He min L Kreisch	
	mr W	7 1 C 5 (1 ago		68:

14	PROLAPSY OF THE PENALE URETHRA	Εl	mas J	II alkıns	UD	F	165	C/ toug	687
----	--------------------------------	----	-------	-----------	----	---	-----	---------	-----

15	RESIDEAL URINE IN WOMEN	Will ar H Cu tos M D 1	165	(brease	68
- 3	tenorous, out a st appear	Transfer Cardo Habe		CHIERRO	Dag

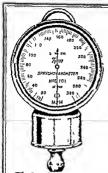
- 3		Carrello	Do
16	THE SERVICE AND CARROLOGY	Js b) L Baer M D	
	f 1 CS in 1 K lbl 1 Reis W D Clicago	•	60

DEPARTMENT OF TECHNIQUE

1	MANAGESTAT	r Occipitopostrior I	ostrov n	tra Special	REFERENCE	TO THE 10
	PLI ATE	THE LIELLAND LORCED	Sam et J	S adr 37	D 1165	1 cs. 1 rk

601

618 060



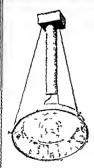
The Sphygmomanometer in Surgery

ROGRESSIVE surgeons discovered the accuracy of the Tyeas Clinical Sohve momanometer ten years ago

Today no surgical procedure is considered complete without the data offered by either one or both of the Tucos Sohab Mothemore. eters-one for diagnosis (il ustrated) the other for the operating room

The acceptance by the surgical profession of these instruments as standard is proof of the constant accuracy of the Tycos

Taylor Instrument Companies Rochester N Y U S A



SCIALYTIC

Shadowless Operating Lights Heat, Glare and Head-Shadows Absolutely Eliminated

Installed in hundreds of hospitals not only in the United States but throughout the entire World

Endorsed as indispensable by famous Surgeons in every Nation

Every modern hospital will eventually be Scialytic equipped

Full of criptingladly fun han quit

B B T Corporation of America ete Ael ati Bulld ng

manv indications in

CHRCERY

CYNECOLOGY

for which Diathermy is considered a specific

Recently numerous reports have appeared in the better medical cournals giving details of these results and case histories covering many conditions -

PARTMONIA -- ARTERITIS -- PROSTATITIS FRACTURES_TRAUMATIC INSURIES ENDOCERVICITIS AND THE REMOVAL OF BENIGN AND MALICNANT FOREICN GROWTHS

S df our nit from the best of 1 th there on I d cert a m on fith he did which so will of the dit we

THE LIEBEL FLARSHEIM CO. Service Dent

CINCINNATI O

710

CONTENTS-MAY 1925-CONTINUED

DEPARTMENT OF TECHNIQUE-CONTINUES

IS INCUMOPERATORELY AS AN AID IN THE DIAGNOSIS OF ORSCHEE PRINTE LESIONS AND EARLY PRECNANCY Lucius E Burch M D F 1 C.S. Authorile Tennessee 701 10 CLOSING ENDOMETRIUM IN CASARFAN SECTION Oliver C. Car. M. D. Il asl inclore 26 20 A MODIFIED MAYO UMBILICAL HERMIOTOMY C A Rotder M.D. F. 1 C.S. Omoho h. sheasha 202 21 A STAPLE METHOD OF CONNECTING A GLASS STRINGE AND PLUNGER Robert Emmelt Fa r M.D. FICS Minneapol's Minnesola 203 22 SUBMUCOSA DISSECTOR 1 J Grah m II D Clicaro 00 23 FLENO-EXTENSOMETER II Earle Conwell M D Fairfi Id Mahama

MEMOIRS

THOMAS J WATELNS M.D. FACS Iriler II Curt & M.D. Chicato

FULTORIALS

CONGRESS OF AMERICAN PHYSICIANS AND SLEGEONS II alliam J Mayo M D Rochester M nnesota 14 THE TREATMENT OF ADOLESCENT GOITER He old L Foss M D De ville Le nighte te 716

CO TEXTS COVID TED OPPOTITE VEXT PAG

PROMETHEUS

The Price Is Low

This new Prometheus Pressure Steri lizer costs a bit more than an ordinary instrument sterilizer—only a little more the price is low. It insures complete sterilization. Inside diameter is



8 inches length 16 inches ample room for dressings and linens Simple in construction it requires little attention. Dressings are sterilized and dried under 15 pounds pressure.

W t f r C cular G

PROMETHEUS ELECTRIC CORP

358 W 13th St New Yo k Ctr

Send in complite detail of the low price Pr up Ster Nam Addr

ilizer Name f De les

Ask Your Dealer for Circular and Prices of The Albee Fracture Orthopedic Operating Table



Bh t tabl pre m pac th d ry p

mpro de bl q pp de

F t d rthop d t tm tm d m tih pecifi n

TASCARELLA BROTHERS

65-75 G g St BROOKLYN N Y

Manuf tur I Complit Lm I H pad d Physu an Ropu m t f Tw ty-tw Y err

AMPOULES

INABER DAVIS & COMPANY!

COMMEND THEMSELVES TO THE CAREFUL PHYSICIAN

T)	(1) In them th	ment f ha	I per	ed ed	by th		r	tal	y of	eα	
Весаиѕе	(1) In them th I	y 4	y to ca ry	N	lm	1	1	t f	m ki		1

(3) Thy mad which a rail this rail trying d. The simple d which will re wish a solution stained in the

AMPOULES PRESENT AVERAGE SINGLE DOSES OF

r dly r frhl to the hypod rm syrng nd less lk ly th nimpr dol ton to urrest the ubcut neous t es.

The pipl of rad rd t n which have n her to our dots as swhlare of ly rold to the more that compress cawd very of

a while 1890 by ppl dito the important state comp is gaw of we form!

Of his day? & Di&Co on prill ded (some many of his day are many of his day.

h lq

O dipog ther you ill d danel b his Amp i i so i

PARKE DAVIS & COMPANY DETROIT - MICHIGAN

CONTENTS-MAY 1925-CONTINUED

MASTER SURGEONS OF AMERICA

718

721

771

DUDLEY PETER ALLEN Coorge W Cr le M D Cle land Ol 10

CORRESPONDENCE

- The Treatment of Brain Abscess by Unrooping and Temporary Herniation of Abscess Cauten with the Anothence of Useal Drainage Methods C. Hom to 31 tef d MRCS-LRCP Ihm θ I reliand
- I from in Diagnosis in five Hundred Laparotomies—a Correction $\ R$ M $\ Harbin$ M $\ D$ Kom. Ge r_g

TRANSACTIONS OF SOCIETIES

CHICAGO GYALCOLOGICAL SOCIETY

- THE SEDIMENTATION TESTS IN OBSTETRICS AND CYNECOLOGY. Jos pl. L. Bae. M. D. a.id. Ralbi Reis M. D.
- PROLATSE OF THE FEMALE LETTERA Th ms J B ath: M D

 722

 PROSERVE LETTERA THE MALE LETTERA THE MS D

 723
- RESIDUAL URINE IN WOMEN 1 I'll u II Cu ts M D 724
 CONTENTS CO TENTED OPPOSITE MEXT PAGE

PROMETHEUS

The Price Is Low

This new Prometheus Pressure Steri lizer costs a bit more than an ordinary instrument sterilizer - only a little more the price is low. It insures com plete sterilization. Inside diameter is



8 inches length 16 inches ample room for dressings and linens Simple in construction it requires little attention. Dressings are sterilized and dried under 15 pounds pressure

W t fo C ul G

PROMETHEUS ELECTRIC CORP

358 W 13th St New Yo k City

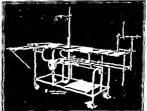
Send me complet details of the lov price Pres ur Ster Name Addt 19

N m f D aler

Ask Your Dealer for Circular and Prices of

The Albee Fracture Orthopedic Operating Table





gs bl

tm tm d The mprodebl gepede m teb sp fied

F tu and oth pedet im tm d TASCARELLA BROTHERS

65-75 Georg St BROOKLYN N Y

Manuf tur of Complete fill plat d Physican Requirem t f Tw tylw Y are

AMPOULES

IDARKE DAVIS & COMPANYS

COMMEND THEMSELVES TO THE CAREFUL PHYSICIAN

Because (1) I has th Im feba I perseded by h raum fised see (1) Thy defined by the raum fised see (1) Thy model with full million by the bull of the see (1) Thy model with full million by the hill be with hill call del him

AMPOULES PRESENT AVERAGE SINGLE DOSES OF

re dly t ansf ble to the hypod sme sy nge and fe I kely than improv ed a l ton to rt tat the but us ti ues

The property of the desired destroy which has generic racte to open ducts a whole good by pold to the impoule leading a wide very of formule

Of his of dhyfik Discom pillys distori Showshim nysers his his beh dam d hiddyd mbetash which high still pepty mily ins

O flipse ther ben icell i der d bankl. Amp lo j um t

PARKE DAVIS & COMPANY DETROIT - MICHIGAN

CONTENTS-MAY 1925-CONTINUED

MASTER SURGEONS OF AMERICA

DUDLES PETER SLLES Geo ge Il C le M D Clerela d'Ohi

CORRESPONDENCE

718

721

722

24

THE TREATMENT OF BRAIN AB CESS BY UNROPPING AND TEMPORARY HERMATION OF ABSCESS CA ITS WITH THE ANY INSIDE OF USLAN DRAIL AGE METHODS. C. II. milto. II. thirlord.

1/1 N. C. S. L. R. C. P. P. S. II. I regled.

I ERORS IN DIAGNOSIS IN I IVE HUNDRED LAPAROTOMIES—A CORRECTION R M II 16 m M D

As (g

TRANSACTIONS OF SOCIETIES

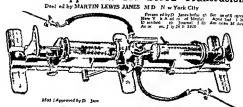
CHICAGO CANECOLOGICAL SOCIETA

The Sphinentation Tests in Obstitues and Cynecology | Joseph L | Bae M D | and R lpl Reis M D

RESIDUAL URINE IN MOMEN 1 th ## Cutts M D

CONTE. TS CO TINCED OPPOSITE EXT PAGE

The Janes Apparatus for Blood Transfusion



a) wrother o p tents hom

syn go being in invitan ous
the tim in which the blood to

itti in high and eal pure
authority Constructed and riby of

L. J LOOMIS & COMPANY Inc

17 W at 60th St et New Yo k City

INDEX TO ADVERTISING ad Apparatu Pharm A A D was C M So think ma for S great C will h Publi h ra Hospital S pplies Le de F b C 4 C 71 y Pre Redl m ra li & Rb I tr kP t-Cred to M die 1 Miles Maneous 2 d Cover L tg t Lig t H tc perp Gs cology ad Ob I t les



THE PETTON & CRANT CO DI TROIT MICH

CONTENTS-MAY 1925-CONTINUED

TRANSACTIONS OF SOCIETIES-CONTINUED

- Report of a Case of Dystocia Due to Rigor Mortis of the Fetcs in Utero $\ C \ P \ Bauer \ M \ D$
- REPORT OF TWO CASES OF PLACENIA PREVIA WITH LOW INSERTION OF THE CORD. Ceorge Calloway M.D. 726

THE SURGEON'S LIBRARY

OLD MASTERPIFCES IN SURGERY—CERTAINE WORKES OF CHIRURGIE NEWLIE COMPILED AND

REVIEWS OF NEW BOOKS

Mod M bod | Tre tm t B Log Ci d MD 9 5 Th P obes 1Pactor tObs 1 tes By Jseph B D Loe R d and N L E cs d sch F oc es Leben AM M D

AMERICAN COLLEGE OF SURGEONS

THE STUDY OF FIND RESULTS IN HOSPITALS Maked Seag a e M D. Seattle II ash ngton. The 1925 Clinical Congress in I miladelphia.

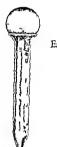
725

727

B-D PRODUCTS

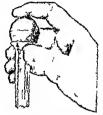
Made For the Profession

Asepto Syringes



Durable Efficient Easily Sterilized

> Forty Styles and St es for Every Purpose



Perfect One Hand Control Completely filled or emptied by one compression of Bulb



Genuine II hen Marked

B-D

enter Bulh An Exclusive Feature

Supplied through Dealers

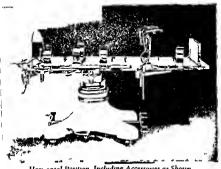
BECTON, DICKINSON & CO

Malers of Cenuine Luer Syringe Vale Quality Veedles B D Theimometers ice Banlages Iserio Syringes Sph jgmom mometers and Spinal Manumeters

The Surgeon Knows

the value of the

"Ohio" Operating Table No. 2



Harr ontal Position Including Accessories as Shown

When the surgeon has had an opportunity of seeing the Ohio Oper ating Table No 2 in operation or has had a practical demonstration of the same he has a fauly well defined idea of the unusual merits of this table

Almost immediately comes the conviction that the late al tilting positions possessed by the Ohio are a very valuable addition to an oper

ating table

This for the reason that so many modified positions may be obtained as to just exactly suit the conditions of each individual case

Then again by tilting the table towards the surgeon it is possible to maintain a more erect position and thereby avoid needless physical strain

More complete information will be gladly furnished on application

MADE BY

F. O. SCHOEDINGER

Manufacturer of Asentic Metal Hospital and Surgical Furniture COLUMBUS OHIO, U S A

B-D PRODUCTS

Made for the Profession

Asepto Syringes

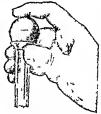


Durable

Efficient

Easily Sterilized

Forty
Styles and Siles
for
Every Purpose



Perfect One Hand Control

Completely filled or emptied by one compression of Bulb



Genuine When Marled

An Exclusive Feature

Supplie I through Dealers

BECTON, DICKINSON & CO

Malers of 6 nume Luer Syringes 1 ale Quality Needles B D Thermometers

tee P indages 1 septo Syringes Sphygmamanameters and Spinal Manameters

The Surgeon Knows the value of the

"Ohio" Operating Table No. 2



When the surgeon has had an opportunity of seeing the Ohio Oper ating Table No 2 in operation or has had a practical demonstration of the same he has a fairly well defined idea of the unusual merits of this table

Almost immediately comes the conviction that the lateral tilting positions possessed by the Ohio are a very valuable addition to an oper nting table

This for the reason that so many modified positions may be obtained as to just exactly suit the conditions of each individual cale

Then again by tilting the table towards the surgeon it is possible to maintain a more erect position and thereby avoid needless physical strain

More complete information will be gladly furnished on application

MADE BY

F. O. SCHOEDINGER

Manufacturer of Aseptic Metal Hospital and Surgical Furniture COLUMBUS OHIO U S A



This Letter Set Him To Thinking

Dear Sic

I represent Mrs — who is the mother of Mrs — 3307 N Albany Ave Her daughter informs me that Mrs — was injured in an accident January 27th 1933 caused from a fall

Mrs — advises me that you started treating her mother for a bruse that no X Ray was taken and that you continued to treat her up to and in cluding February 27th 1923. She then called a Dr — to examine her mother a critical properties and that time being in great pain and Dr — ordeted her to a hospital where an X Ray was taken and showed a fracture On account of neglect on your part the injury became very scrous and after the setting of the fracture Mrs — was compelled to and did remain in bed for several weeks and up to the present time has not completely recovered from the injury.

In view of the above circumstances would you kindly let me know what your intentions are in this matter in the way of repaying and compensating this woman for your alleged carelessness and neglect in treating her Yours trily

Attorney at law

And Then We Received This

Gentlemen

For some months I have been receiving literature from your company offering to sell me protection against malpractice charges and damage sunts I put this off too long for I have a suit filed against me

However it is not too late to take protection against others that might

be filed

Yours very truly

For Medical Protective Service have a Medical Protective Contract

M. M. John Wall Ships

Der Variation

OXFORD Loose-Leaf SURGERY

Edited by LAMES MORLEY HITZROT A B M D

CONTRIBUTORS

Anderson II G Andreus II R Ashburst A P C *Bahcock W Wayne *Balfour Donald C Barler Arthur E. *Barrett Channing W *Blair V P Bland Sutton Sir I Bonney Victor Bristow W Rowley Browning C H Burghard F F *Case James T Cheatle G L *Cotton Frederic I Crafe George W *Culbertson Carey Curtis Arthur H David V C *De Lee Toseph B Edwards F Swinford Fagge C H

Sentre

Findles Palmer Frever Sir P I Gillies H D Godice Sir Rickman *Handles W S Harmer W Donolas Harris M. L. Herb I C Flodeine Seaths Horrax Gilbert Iones Sir Robert *Indd E Starr Kanazel Allen B *Koch Sumner L Lee Burton I Legg T P Leuis Dean Lewisohn Richard Lynch Frank W MacLeod I M II Makins Sir G H Maxwell R D

Maron M S Movnihan Sir Berkeley Newman David O good Robert Penhallos D P Percy V M Peterson Reuben Pool Eugene II Rawling L Bathe Robson A W Mayo Sargent Percy Simpson Frank E. Stiles Sir Harold T Thompson I E Thomson Sir St Clair Thorburn W Tod Hunter F Trotter Wilfred Walker I W T Waring H T Watkins Thos I Waugh George E. Yates J L

The thenly Serventh Felhles the occued that tanb kept produce the perfished median bee m de th w kwa p blah d both by r n d th add ron of h ges and t d by th () m L ppc g front fibe me fibe contr b to a shown

ONFORD UNIVERSITY PRESS AMERICAN BRANCH 35 West 32nd Street New York

ac tape pg n d t Lepth ILW 11 S UP TO D ITE

KANAVEL on Infections of the Hand (Kar a)

In the treatment of infections of the hand the surgen hold of erf get thin the ten i proceders of the treatment of the treatm





B ALLE B LA MD P few f gry with esteen t

y At 1 gS rgeo Wmly N m 1H 1

5 WASHINGTON SOUARE

LEA & FEBIGER

PHILADELPHIA

Crossen's

(New 3rd Revised Edition)

Operative Gynecology

By HARP's CROSSEN MD FICS P fess of Claucal Cyncley W h taU rs M i 18 hool Cyncles n Chifto Barn H ptaland W h gt a U ty Dipen sary et

675; et 6 85 1 1 78 tra son

A NEW edition of a Cros en book is like the addi-

and more than 80 new pictures. Exery not mooperation is taken up in minutest detail in the volume

C V Mosby Co, Medical Publishers

[14]





Lippincott's Newest Texts

BECK-The Crippled Hand and Arm

By Ca | Beck MD F.A.C.S. Chicago Octavo 243 Pages 302 Illustra

A unique and m chinceded mon graph on the various tyres of deformaties of the hand and arm as a result fathorm i de et pinent my ries uni diseases p bly illet ated by

MUIR-Text Book of Pathology

By Rab et Mute M.D. Professor of Pathology University of Glasgow Pathologist to

B 4 D ILetY

THOREK-The Human Testis

By Max Thorek M D Surgeon in-Chief American Hospital Chicago Octavo 548
Pages 208 Illustrations Cloth \$8 00

am ot t mates it

DAVIS-Applied Anatomy Sith Edition

By Gwlym G Daris Thoroughly sen ed by George P Muller M.D FACS of the U versity of Pennsylvania Octavo 638 Pages 631 Illustrations in colors and black. Cloth \$40.00

Thun kas will hownt then fees though eth norld that the nonunc ment of an edit. How mown to give the thas been completely be ght it dat by Dr. Miltrotth Une cray of Instiant.

WILSON AND COCHRANE—Fractures and Dislocations Treatment and After Care

By Phinu - c

too L strut n figureto

ANSPACH-Gynecology S cond Ed t on

By B ooke M Anspath M D FACS Profes or of Gynecology Jefferson Medical Chere Philad lphia Octave 753 Pages 332 Illustrations 5 Colored Plates Cloth 5000

J B LIPPINCOTT COMPANY

LONDON S COLLETS PHILADELPHIA S COLLETS
16 John St. Addight H C 2 Earl H die fem South

MONTREAL S ce 1897

Lukens Sterile र्व्याप्र

With Dulox Needles



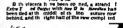
FOR YOUR NEXT

GASTROENTEROST Cargut sutures are now demanded exclusively for all their ulcer work by some of the most advanced stornach surgeon wha some time ago discarded silk, linea, etc., for the inner row and

auvanious isometria suggers. Whis some time ago questrored sits, lines, etc., for the lines row of recently for the source reserved by because the contembration of a permanent suttree with sommet-contents of high acidity means a new sizer. Hance the introduction of this special reputs extra samed to reals' digestion. It is a heading a complete collecting gat being above bed too early for acidity it used alone. B los headines are swedged on and cannot become detached. This combination makes a ready appeal to the operator who appreciates techlical requirements.

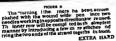


The t much and jejunum have been u ited by a cond uous Lembert uture Extre for ed Cargar with Singl D to Mondie. The sut row of sutures is half completed



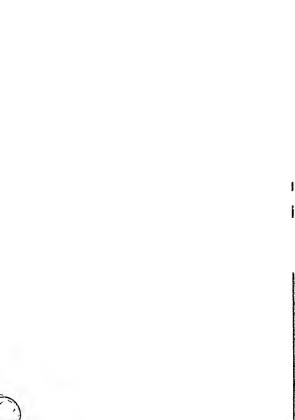


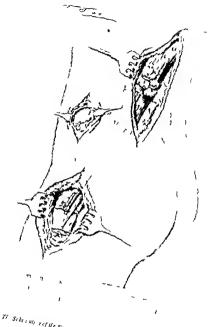




UFFIE S1225-0-1 100 T 100 P. J. C. P.

C. DEWITT LUKENS CO





71 Sibinal reflere 1 Spect Popular of Gi on V id

SURGERY, GYNECOLOGY AND OBSTETRICS

AN INTERNATIONAL MAGAZINE PUBLISHI D MONTHLY

VOLUE VI.

VAL 1925

Names 5

THE SUBSTITUTION OF THE IRECTOR SPINE FOR PARALAZED GLUTEN, MUSCLES

AN OPERATION FOR STABILIZING THE HIP BY PHILLIP II APPLIESCHER MID FACS CONTACT

CINCE the de cription of infantile par every bone surgion has been directed toward methods for tchef of the permanent paralysi Innumerable mechanical appli ances have been devised and many operative procedures have been de cribed. The earlier surgeons were content with days ion of contracted tendons to improve deformities, while in later years more effort has been made to stabilize the paralyzed extremity by fixation of joints by means of the arthrode is opera tun by transplantation of tendon and the use of foreign materials e pecially alk cord for arutical tendon. On the whole these procedure have been yers succe but in the paraly 1 of certain groups of muscles as in the

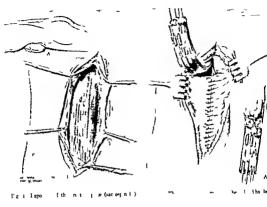
perminents paralyzed muscle of the thigh and of the stabilizers of the hip Gutterl action has been the mot difficult to produce When the gluten wedge i paralyzed abduction of the extremits i le t. The grat action of the extremits i le t. The grat action of the through the paraly is quite character inc. the lump and lumene cannot be relieved by brice and every apparitus

body is thrown hack with a sudden lurch and the patient hurnes with the other leg. The gait is like that of a person who has had an amputation of the fligh and is werning an artificial leg. When the action of both of these muscles has been lost it is quite evident that no type of brice will suffice to bring about satisfactory, action or stabilization of the lap

the other of these muscles is intact a certain degree of success has attended the transplan tation of certain living muscles

Where the gluceus maximum is in intact. Lange his substituted the vastus externus for the paralyzed gluteus medius and minimus. The upper attachment of the vistus is detached from the trochanter major and by a series of silk sutures 1 sewed to the crest of the flum anding the abduction power of the leg. Leg., devi ed an operation for cases in which the glutrus medius was paralyzed with impuriment or loss of abduction face late into the upper portion of the halt of the femure Obvious by neither of these operations is applicable in complete paraly 1 of all the glutest

In a complete paraly 1 of the leg one finds only the weak adduction action of the ilropsoas



attachment to the le er trochanter The en

leg inward and lightly forward as the leg dangles from the hip The patient gets about on crutches carrying or drugging the par alyzed extremuty or hop about on the un

paralyzed log In reviewing the nerve supply of these

cluteal nerve from the sacru pictus

The thop oas muscle to upplied by the anterior p) b

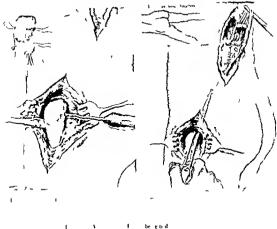
b,

cral

branche of the second and third lumbar nerses It a quite apparent therefore that this muscle remains unparalyzed while all the mu cles receiving their supply below the thard lumbar lose their entire action. The management of the completely paralyzed cases has been the greatest problem for the bone and joint surgeon

We have been content to permit such no tients to get about as best they could with the aid of cumbersome leg and body braces A

few of the more during surgeons have attempt ed to produce an arthrodes: at the hip an i knee joints in an effort to stabilize the ker The best evidence of the futility of the procedures 1 found in the fact that their



as to the

practice has been di continued to a very great extent. The great problem then in stabiliz ing the lower extremity can be olved only by producing plutest mu cle action. Samtor and krukenberg attempted to sub titute the external oblique mu cle for the gluteus medius and all the men and the beneve nowever that in anterior poliomischitis the abdominal will a citen o weakened by the paralysis that it i not expanent to weaken it still further by utilizing any of the abdominal

Lange uggest the use of a portion of the crector ping mu cle as a ub titute for the gluter Up to the time he has never pub h hed he operation I performed the opera tion I am about to describe in March 1921

so that it is quite probable my procedure differ in many details from the one he on, apally concerved

The patient upon whom the operation was

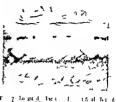
ing to the examination of the surgeons who saw her and the attending neurologist had a purilysis of all muscles acting upon the leg except the alson-oas

with high t imperatur and complete prostration



The 6 4 trans s to though its ife 1

r venr she h i reguired control of the spineter. The left leg remained completely paralyzed from the leginning. Ten months after the paralysis she



F 7 Logid let f 15 al lit d
Fr pl at fliings Frace (Aft La
f m 1 tb) s D at fB at d J a)

ward in Such a way as not to interfere me

ward in such a way as not to interfere more than necessary with the blood and nerve supply (Fig. 2). The sutures are left sufficient by long to reach well beyond the greater trochanter their point of future fixation. A short curied incision with the consecut, for ward 1 next made exposing the greater trochantic and a portion of the upper end of the shaft of the tenur (Fig. 3). At a inch forceps

tut d a portion of the erector spinæ muscle for the pa lyzed glutes accord g to the following techniqu

The patient is placed face downward upon the operating table. The lumbar spine i electated by placing sindiving under the abdomen to make the erector spine muscle more acces able (Fig. i). An inci ion about 8 inches long i made over the lower portion of

one hilf of the erector spine 1 detached at the crest of the hum and freed upward for about 6 inches. The sheath of the nuscle is closed leaving the detached portion lying upon it (Fig. 2). Two series of silk sutures e ch containing four strands are pieced in the prepared stump of muscle from above down

fatts tunnel the sutures are drawn down and are ready for fixation. Two of them are passed through a drill hole which has been made through the greater trochanter and two are carned around the shaft of the femur just above the le ser trochanter. At this stage of the operation the ler is brought in extreme abduction and the silk 1 tied with sufficient ten ion to draw down the stump of the erector sping muscle but not so taut as to necrotize the muscle fibers To provide a smooth sliding surface for the silk a piece of fascia lata 112 by 1/ mehe is sutured over the po tenor aspect of the crest of the ilium Thus we avoid a destruction of the silk strand as they pass over the iliac ridg The accomp hahed another tunnel is made from the greater trochanter directly upward to the cre t of the illum To the e two fixed points

two additional sile sutures are attached to aid in the abduction of the leg (Fig. 5 fron tispiece). In all incivions the skin is clo edurith out drainage. The entire procedur, must be carried on with the strictest acceptic technique as ev. in the slightest infection would necessatate the immediate rimosal of the silk and in consequence a failure of the operation. After the completion of the operation along and body cast is applied, and cive is used to keep the leg in extreme abduction.

in extreme auduction

The silk which is used is sterilized by boiling
to insure its a cp is. It is furthermore ren
dered antiseptic by placing it for 24 hours in a
20 per cent aqueous solution of the oxy evanide

of mercury.

These strands do not long act as a foreign body. Is Lange showed a number of years 180 in an operation upon the anhle the art theal part of the tendon queckly increases in thickness when the transplanted part begins to act. In one of his cases in which mercun alized silk was used the tendon was the size of the little inager 2 years after the operation (Typs 6 and 7).

The artificial prolongations appear as blue white tough fibrous cords in the center of which the silk hes unnitered. Microscopical examination of an exceed piece showed in the deeper and therefore older layers of fibrous is sue next the silk that the structure was identical with that of a normal tendon. In the superficial layers the appearance was also tendinous, with the addition of catterel we sel and connective to sue cells.

The u e of the crector spine muscle is almo t ideal in that—

1 It permits u to conform with the lon-

I'm mu cle act sanerga tically with

the gluteri mu cles for which it i u ed as a

3 Early one half of the volume of this muscle can be utilized without interfering with the normal erector spine action

4 By dividing the muscle as described above one does not noticeably interfere with the blood supply of the loo ened portion. There is very little bleeding from the muscle tas not elf when it is detached.

The abduction east is permitted to remain for 8 weeks during all of which time the patient is encouriged to evert abduction action. At the end of a months the cast is removed and the legs are placed in a Travois or similar abduction splint. This position is as sumed for at least 6 months or until such time.

and

subsc

mitted to be up and about on crutches being warned never to adduct the leg beyond the straight him of the body. Massage and electrotherapeutic measures are carried on over the entire extremity and mild electrical sum ulation over the erector spin is muscle for the purpose of strengthening it and developing it to the fullest degree

At the end of 8 months our patient was able to plee the entre eight of her body upon it leg ope atel upon and was able to walk without the use of a crutch or cane. This she was able to do for the first time since the paralys say are and a months before

I or first on of the knee) at we applied a sm li poster or pliot I very much prefer the use of this s mple brice to the une stain arthrode isoperation which would permanently stiffen the knee

The result obtained in this case his been most gratifying

- 1 We were able to restore complete stability of the hip-joint in a totally paralyzed extremity
- By the we of the erector spine muscle we were able to produce very definite fluteral action
- 3 With a stable hip and gluteal a tion the patient 1 able to walk about unaided

GINICOLOCICAL CONDITIONS TREATED WITH RADIUM ALONE OR COVIBINED WITH SURGERY

REPORT OF ONE HENDRED FIFTS SIX CASIS

BY WILLIAM SIDNEY SMITH MD FACS B OOST, NEW YORK f m h Dens to tof Gs to Le dObtt fth Bookly Houn 1

I have been using ridium for the treatment of some genecological conditions at the Brooklyn Ho pital since January 1 1921 a period of nearly 4 vents. In that time and cases have been treated of which there have been 66 cases of chronic metritis at the menopouse, 21 ca es of ubroid at in es of circinoma of the cervix 17 cale of caremoma of the fundus and 11 ntisceilaneous cases

In all of the e the radium salt was used contained in two 50 milligram tubes. The screens were a glass expedie containing the

that our cases have received only a rays

As you know there are yarrous materials u ed tor screening purposes. In the absorbing power of B ray > platinum has exactly twice that of silver or lead and nearly two and three quarter times that of bras according to the Radium Company of Pittsburgh We are indebted to Dr Harold Bailey of Ven York for the suggestion that we use 1 mills meter of platinum as a screen and that by so doing we would probably avoid some serious injuries

Our technique; to tie a strong all thread into the eye of each platinum capsule. The

nt car The

ıbber inserts the law w tube tie off both ends of the tube with silk leaving a long thread attached to one end By this means we have a silk thread attached to the rubber tube and to each radium capsule The screened radium is now ready for it e

Later the three silk thread are attached to the patient's thigh by adhe is e plaste

CHRONIC METRITIS

You will see that over half of our papents sere suffering from chronic metritis or mall fibroid

The metrite cases were all at about the menop ty e age and gave no hi tory nor phy ical findings of previous inflammators trou The principal symptom was uterine bleeding They were all subjected to a careful examination under anasthesia and uterine curetting. The curettings were later exam med by the pathologist. If the diagnosi of chronic metritis was sustained by clinical findings at the time of operation these pa tients received 1200 milligram hours of radium at one dose in the so milligram tube in tandem screened with a millimeter of plate num and millimeters of rubber kadium was carned well up to the fundus of the uterus and kept there by a narrow strip of gauze

custom in some institutions radium were removed 12 hours later without difficults or pain to the patients. Our rule i bed for 6 days

The results have been very atisfactors

treatment 6 months to a year later (f ; co

milligram hours which cured them and the

B of tith Oc h m a fith Breedly G or log 15oc y

then

ing the surgeon performed a supravaginal

Of these 66 cases of chronic metritis 11 had the combined treatment of radium and sur gery at the same sitting. The operative procedures were tracheloritaphy amputation or repair of the anterior of posterior vaginal walls. In many of these cases the radium was placed in the uterine canal and the rubber

bow knot leaving a long end which was car ned out of the vagina and attached to the patient stingh. When radium is thus fastened within the cervit and uterus the vagina is not packed with gauge. We have had no bad

which had a Byrne cautery amputation of the cervix and I will report it in more detail

cervix and I will report it in more detail

valescence was stormy because of secondary harnor thage from the cervix. The patient left the hospital in 3 we ke with the cervix healed and in cool

condition

Two years lat r this patient complained of ah dominal pain once a month. There was never any if v an i no fever. She looked well. Six month later the pain each month had increased an i a

u tended with old menstrual blood. A supravaginal hysterectomy with a double salpingo-oophorectomy was done. The stump of the tervix was split for drainage and the patient mad a slow but satis factory reco ery.

Here is a case in which 2400 milligram hours of radium within the uterus failed to stop the menstrual periods for more than 13% years. The menstrual function then slowly returned but as there was a stenosis of the cervical

can'd due to the cautery amputation there was no drainage and the blood backed up into

TITTOTTO

The fibroid cases treated with radium were In number For the most part they were small fibroid tumors in the wall of the uteris or small magmata. In only 3 cases have tumors larger than a fetal head been treated and we have been careful to exclude sub mucous or pedunculated tumors and those causing pelvic pain. With one exception the patients ages have been between 40 and 50 years These patients were all subjected to a careful lumantial examination under ances thesia and an intra uterine in estigation with a curette before the radium was introduced into the uterus. The usual radium dose was 1200 milligram hours. One national received 1500 milligram hours and two received 2400 milligram hours at one ses ion. The results have been excellent

slowly became reduced in size

I know of only two cases where the bleeding did not stop with the single 1700 milligram hour dose. In both of these cases the period have been reduced to normal in frequency and amount the uterus remaining about station are in size.

tr r ss. sa.

later supravaginal hysterectomy. In each case the flow ceased, the hæmoglobin increased, and the patient became a good operative risk with eventual recovery after hysterectomy.

CARCINOMA OF THE CERVIN

We have had 41 cases of carcinoma of the certix of which 3 were of the epidermoid

i

Of the 31 ulvanced cases which received radium as a palliative remedy there were 3

not show exten ion into the broad ligament

ns far as could be ascertained

Making still another grouping of these 41 cases. One received radium treatment and in 1 month the diease had spread very rapidly. One received radium treatment and

months later was subjected to a total abdominal hysterectomy

Fight received a Byrne cautery operation and radium at the same session with or with out later X-ry freatment and 31 cases received radium alone or with X-ray as a calliative remedy

second doses of 2400 milligram bours after an interval of 4 to 6 months and many have been given \ ray treatment across the abdomen

ment either alone or with \ ray is the best palliative ramed) at our command. Life is prolonged the foul discharge and the bleedin are very much decreased. Pain may or may

though something use oeen tions for an

beass radium dosage in anothe ho pital and clamonths after the first treatment. I do not know

Fight cases received the Byrne operation and radium. In this group 2 cases h d th

and radium at the same session. Five of this group of 3 patients have only been under bobcration for 1½ year of less so it is too soon to speak of them except to say that A are doing nicely, and that one is having a slow ceteneon of the disease. This last case had some growth on the anterior vagical wall which could not be entirely erudicated at the time of the operation, so the extension of the disease, is not unexp. etc.

The other three cases are of interest

ary harmorrhage. To o weeks after di charge the patient was to admitted to the hospital suffering from another harmorrhage. On dischurge she went

chited no signs of extension of the di case. Six months later a similar attack occurred. She was re admitted to the hispital and examined under aniesthesia. The uterus was fully movable, and the

health, to be retained as an inmate. This patient will not come for examination, but our social worker reports that she is alive and working at her house hold lute as it the present time. I year after treat

ment
The second of these cases was a married woman of
3, who came for observation on June 13, paps, with
an epul road, carnoonan of the cervit. Her history
was, menorchagia for 4, month spotting between
cash cite. The cervit was heartest ended bled
easily to touch and the uterus was large and mov
at!

41.

that it is the hospit languages. The patient fally left the hospit language condition

at

Ling and no discharge. There has been no chang in vagins and uterus on palpation. On in pection there is a mall red area at the entrance of the uterine canal. This area does not ble d on sponging and it is soft to fouch.

I think the last two attricks of bleeding were a beginning return of ovarian function and the pain was undoubtedly due to a stenosis of the opening of the uterine canal doubt very much whether radium had any thing to do with the secondary harmorrhages reported in these ca is I rather think that they are due to the high By mic cautery oper ation which may have been done too rapidly or with too great a degree of heat

For these hamorrhages our treatment has been a free use of morphine and raising the foot of the bed

ADENOGRECINOMA OF THE CORPUS UTERI

was not not ly m bil. The roort f m h

s w r told 1h h

Of the 17 cases of adenocarcinomy of the corpus 7 were advanced and to were furth carly cases that is the fundus was movable and there was no demonstrable industation in the broad ligament. All these patients were between 38 and 60 years of age.

The advanced crack were given 2400 milligram hours of radium within the uterine canal. Four of these cases had addominal Very treatment and three did not have it Nonc of this group was operated on. Three patients had a second 2400 milligram hour radium treatment of months after the first and one patient has had three such 1 to 250.

this is the 1 ti nt who has had 7200 milligram hours of radium within the uterus in addition to ray. She has no bleed ng and n watery dis

i C inintt utru nto

charg but her pelvis is filled with a hard immov able mass and there is extension into the cervix She will eventually disofrancer

I feel quite certain, however that radium

no demonstrable broad ligament induration received a 4400 milligram hour dose of radium within the uterus. Two of the cases were subjected to a complete abdominal hysterectomy to days after their radium treatment and the remaining 8 had their hysterectomy 6 weeks after their radium.

Light of these patients are alive and doing nucely 1 to 3 years after operation Of the rimaious, 2 cases one died of general per tomius a few days after the hysterectomy and the other is having an extension of the disease in the vault of the vagina 2 years after operation. This patient 1 voice is had an extension of her trouble in one tube at the time of her hysterectomy so the outcome is not entirely unexpected. Curiously these two are the only natient's who had early histerectomies.

In this group of ten cases of which I have been speaking there is one which I will report in detail because her abdomen had been onemed and her uterus and ovaries inspected

weeks before her radium treatment. She was then subjected to a total abdominal historectomy 6 weeks after her radium treatment and her pelvic organs were again inspected and sent to the laboratory for section.

Miss 1 gc 38 school teacher as admitted m of chr m periods had that she h 1 months Sh where the radium capsules had been placed and no carcinoma could be seen in gross. She is apparently well at present

The pathologist's report is as follows Specimen con ists of uterns ovaries and tubes. Pathological disgnoss carcinoma of uterus local zed acute and subscute endometritis (Radium).

present hinty small after I s above on I also o the lumen by a process of finely granular degeners ition affecting the vessel and giving it a slaty blue stain Similar areas of large size poss bly loblicies are seen. No other pathological changes are en dent

Fibrinous patch on endometrium consists of fibr n containing many polymorphonuclear cells beneath it is a zone containing young fibroblasts and poly

If radeum has any effect at all on the para metnum and you will probably agree that it has then I think it is logical to use radeum as a preliminary to total abdominal hysterec tomy in the treatment of early fundal carci

noma MISCELLANEOUS CASES

Of the 11 miscellaneous eases 3 were in young women with chronic discharges from the cervix following old gonorrhoeal infections They received 400 to 600 milligram hour treatments at one session Radium was sutured within the cervix. One case is too recent to speak of in regard to results other two patients each missed one period and their discharges have been very much less ened They are not entirely cured

There have been three cases of hyperovarian function in young women Radium was used within the uterus after an exploration of the uterine cavity with a curette. Dosage 400 to 600 milligram hours All these patients bave been greatly benefited and there has been no lasting damage to the menstrual periods

Tive cases were suffering from chronic trachelitis and erosions of the cervix These patients were all about the menopause age They were poor operative risks from general causes and they received 1200 to 2400 mills gram hours of radium against the cervix or in the cervical canal None of these cases was considered malignant by the pathologist. The results have been that the cervices have all been reduced in size and the erosions have healed

REACTIONS

I ractically every patient who has had ra dium inserted within the uterus has suffered from nausea and vomiting while the radium tubes remained in place. The symptoms subide as soon as the tubes are removed. We are of the opinion that the nausea is caused by the foreign body within the uterus and that it is not necessarily due to radium Patients have reported very little troublesome leucorrhora

There have been only two patients who have complained of bladder symptoms following radium treatment. One had an advanced carcinoma of the cervix and antenor vaginal wall and the radium was placed di rectly against the parts affected the other case was one on whom a Byrne cautery operation was performed. She had some extension on the antenor vaginal wall at the time of the

no cases of stenosis of the cervix or adhesive vaginitis due to radium in the entire group There has been only one patient who has com plained of rectal symptoms She was treated with a Byrne operation and radium within the uterus A troublesome proctitis continued for some time. We wonder whether the radium did not slip out of the uterus into the vagina Only four temperature reactions have been noted in this entire group

One case had a 600 milligram hour dose within

and flow. The pelvis remained clear of adnexal masses but the cervix was very tender on motion The second case with a serious reaction was a

woman of 45 with a diagnosis of chronic metritis There was no history of pelvic inflammation and no adnexal masses were palpated. She was curetted and given a dose of 1200 milligram hours within the uterus. Her convalescence was uneventful until the fifth day when she suddenly developed severe nausca vomiting diarrhoes and a fever of 103 The leucocytes increased to 7000 with 85 per cent polymorphonuclears The gastro intestinal symp toms slowly subsided there never were any pelvic symptoms subjective or objective Blood cultures were sterde on several occasions. Sh. finally de-

cuum tubes were thought to have been placed in the uterine canal Owing to the friability of the diseased cervical mass the identification of the canal was very difficult The dose was 2400 m lligram hours Convalescence was easy until the fifth day when a fever of 102 occu red with lower abdominal pain Fever con timued gradually reaching normal 7 days later Abdominal e amination elicited that the pelvis and lower abdomen were filled with a hard exudate which continued for a period of 3 months slowly

vaginal wall

The fourth care with a disastrous react on was

Leucocyte rount was 4000 with 3 per ten poymorphonuclears. Blood culture sh ned strepto coccus harmolyticus. Death occurred 6 hays after the onest of the fewer.

SUMMARY

My impressions are that—

1 Radium heavily screened with one milh
meter of platinum and 2 millimeters of mbber
and used within the uterus in 1200 to 2400
milligram hour doses even with repeated

used within the vagina without careful protection of bladder and rectum it will cause a reaction but not nearly so disastrous a would be the case if 8 rays were used

- 2 The temperature reactions occasionally seen are more likely to be due to a fresh invasion by organisms started by the curetting
- and blocked dramage than to radjum.

 3. Radjum alone is an excellent treatment for chrome metritis and small fibroids at timencopause age curing most of the cases with one i co milligram hour dose but even a 2400 milligram hour dose will not always control the bleeding indefinitely in all patients.

 4. Hastic operations on cervix and benne
- um may be performed with excellent results at the same time that radium is applied to the interior of the uterus 5 For advanced cases of cancer of the cer-
- vir and corpus radium as a palliative meas ure gives more relict than any other treat ment at our command 6 In early curvical cancers th Byrne
- 6 In early cervical cancers the Byrne cauters operation and radium at the arms cosion with or without X ray treatment

It is impossible to forces thon much or how little redum treatment will accomplish for any particular patient suffering from careinsma.

Im the it all the members i taffir the perits i pot g nethe cases he have been in telm the adu

A SUCCESSFUL CARDIORRHALHY

BY DINITE MICHIEL MD FICS CHALLESTON SOLTH CALLINA

OUNDS of the heart are most fre quently caused by stab wounds and gunshot wounds and it is surprising, to know how complicated such wound may be in regard to rajury of the other organs in the thorax and the abdominal cavity. Complicating heart wounds we frequently see wounds of the pleura of the vortion of the coronary artery of the internal mammary artery of the diaphraem and of the virious abdominal organs. The pericurdum must needs be penetrated although according to observers it may escape injury by being pushed inward by the traumatizing agent causing the injury to the heart.

According to the authentics which we have at hand and the view that is held now by many surgeons hemorrhage, ber see i not the cause of death in wound of the heart. A wound of the heart does not cause the artism to bleed to death. When such a wound occurs blood fells up the pencardial it interpretability in the pencardial it interpretability in the pencardial in the heart action is interfered with. The known action is interfered with. The known action is interfered with.

action is interfered with the 1 known as hamopericardium or heart tamporated. It resures is mostly exerted on the thin walled auricle as well as the large sense to that the flow of blood to the ventracles is exentually stopped and the ventracle pump themselves dry It il o cruse direct pressure ignust the movements of the ventracle and the contractions are finally stopped. Heart time pounded their is the real cause of death and not the amount of bleeding nor the wound in the learn tiself.

Dx Costa (2) in his last edition of Modern Surgers states—Ro enthril Block Dxl Vicchio and others proved by vivisctional experiments that wound of the heart are not of neces sity instantly fastl that in some cives they may be recovered from that the suturing of such wound is possible and that suturing of such wound is possible and that suturing freatly chances the chance of recovery.

In the Innils of tratomy and Surgery December 1881 John B Roberts of Ihila delphia first suggested that it would be ra

tional to attempt suture of wounds of the heart

In 1887 Cincinnatis famous surgeon Reed sutured a wound of the pericardium and the

In 1891 Dalton of St Louis performed a similar operation and the pittint recovered to Farina of Rome goes the credit of being the first to suture the human heart. The wound was a stab wound of the right ventricle but unfortunately the patient died on the sixth day of pneumonia. In 1896 Rehn of Trinkfort performed the first successful car diorthiphy. After suturing he packed the pericardial crufty with todoform guez.

tive exploratory operation is entirely justifi

the state of the s

2 It has been shown by statistics that the prognosis by reason of hamorrhage and shock

win render the diagnosis certain po thone ment of operation until dangerous symptoms

R dbet Med (Scient f

com

ı osterior

The fourth case with a disastrons reaction was due to streptococcus hamplytiens. The "

2 12)

ì 5

a 5400 with 83 per cent poly Blood cultu e showed arreptoprotphonuclears coccus harnolyticus Death occurred 6 day after the on et of the fever

ST. MMARA

My umpressions are that-

r Radium heavily screened with one mills meter of platinum and 2 millimeters of rubber and n ed within the literus in 1200 to 2400 milligram hour closes even with repeated administrations causes no untoward effect on bladder and rectum and produces very little troublesome leucorrhoca. If the radium is used within the vagina without careful protec tion of bladder and rectum it will cruse a terction but not nearly so disastrous as would be the case if a rays were used

2 The temperature reactions occasionally seen are more likely to be due to a fresh mya sion by organisms starte 1 5

with most of the cases with one i oo milligram hour dose but even a 2100 milligram hour dose will -

excellent re suits at the same time that radium is applied to the interior of the uteros

- s. For advanced cases of cancer of the cer. vix and corpus radium as a palliative meas ure gives more relief than any other treat ment at our command
- 6 In early cervical cancers the Byrne cautery operation and radium at the same session with or without I ray treatment later give results which are so valuable that at should be thoughtfully considered as a possible standard method of treatment

+ # f tb

7 1 hou b for an

carcina Im olbida lith members / paide freport e tha care what ha be a

V SUCCESSIVE CARDIORRHAPHY

BY DANIEL I MACUIRE MID FACS OF REFSTON SOUTH CAROLINA

OUNDS of the heart are most fre quently caused by stab wounds and to know how complicated such wound may be in regard to injury of the other organs in the thorax and the abdominal cavity. Complicating heart wound we frequently see wounds of the pleurs of the aorta of the coronary artery of the internal mammaratery of the diaphrogm and of the various abdominal organs. The pericardium must needs be petertated although according to observers it may escape injury by being pushed inward by the traumatizing agent

According to the authorities a buch we have at hand and the view that is held now by many surgeons hamorrhage ber se i not the cause of death in wounds of the heart \ wound of the heart does not cause the vactum to bleed to death. When such a wound occur. blood fills up the peneardral ac intrancricardial ten ion or choking occur and the heart action a interfered with the a known a hemoning film of heart tamponade Pressure is mu the exerted on the thin walled runde as well as the lines vein so that the flow of blood to the ventrales a eventually stopped and the centricles pump them else It allo causes direct pres ure against the movements of the venturale, and the c contractions are finally stopped. Heart tam pondle then is the real cause of death unit not the amount of bleeding nor the wound in the heart starts

Dr. Costr. (2) in his last edition of Wodern Surgers striks. Posenthal Block Del Vecchio and others proved by usir ectional experiments that wound of the heart are not of neces its instintly fatal that in muccuc their mry be recovered from that the sutur on, of uch wound is possible and that turning grafit, enhances the change of recovery

In the innals of Inaloms and Surgery December 1881 John B Roberts of Ihila delphia fir t uggested that it would be ra

tional to attempt suture of wounds of the heart In 1887 Circinnatis famous surgeon Reed

sutured a wound of the perceardium and the

In 1891 Dalton of St I outs performed a saudyt operation and the patient recovered To Farna of Rome goes the credit of being the first to suture the human heart. He wound was astab wound of the night ventrole but unfortunately the patient died on the sixth day of pneumonia. In 1890 Rehn of Frunkfort performed the first successful car diorrhaphy. After suturing he packed the pencardial carity with todoform gauge.

I oole (3) states that the soundness of im mediate surgical treatment for wound of the heart has been thoroughly established after 23 years of relatively good and constantly improving results. I ven in su pected cases when the chagno 1 is probable but not po 1 tive exploratory operation is entirely justifi-

I here I no typical clinical picture whereby a wounded herrit can always be drignosed especially in the first few hours after an injury. The classical syndrome of heart tamponale due to intrapenciated pressure is more often about thin present life in the critical rigid such as abnormal sounds and increased dulness artequently inconclusive the position and distribution of the surface wound are not always continuing while the suggestive symptoms internal hemorrhage. In motherax or he mognetium thorax may originate entirely in the thoracte lesions other than heart murn.

2 It his been shown by statistics that the prognosis by reason of humorrhage and shock

win lemer the diagnon certain po thone ment of operation until dangerous symptoms

Resulted Med 1, net

make their appearance i not to be recom

Travers case (6) of injury to the heart quoted by Peck (4) confirms the view that the human heart has great powers of re I young man 19 years of age was impaled on an iron nicket fence. The sternum was fractured and the meht ventucle wounded the heart wound being plugged with a frightent of bone. Tempo bleeding through the extensive tear in the heart wall followed the removal of the fragment of bone the humorthice being temporarily checked by three fingers passed through the wound into the cavity of the ventricle Tuents three titches (in two tiers) were used in clos ing the 212 inch wound in the ventricular wall and the nationt lived more than to days

has yet been agree I on as the best. The char acter and location of the external wound fer quently determines the kind of operation and the subsequent steps depend on the necess thes arising during, its progress. Naughan 3 methods are (1) incision through an intercostal space with or without the division of one or two cartilages (2) resection of one or more cartilages with or without a portion of a rib (3) flap across the sternum dividing the sternum and cartilages (4) flap of car

edges and not from sepsis. This was probably the most extensive heart wound ever sutured with even temporary success.

Certain and rapid healing of setured heart wounds may be definitely looked for according to I cek. (4) if death from harmorthage or shock is a verted and septir infection prevented Elsburg (3) has shown that repair takes place as in other muscles by the formation of fibrous it sue and not by regeneration of heart muscle but that it is mone the less strong and the function of the heart muscle is not senously impured.

Statistics show that the majority of patients with heart wounds (bout 65 per cent) die of infaction emperia infective percarditis epais on the muth or tenth de.) Hence should be extremely careful in our preparation of the skin notwithstanding, the fact that we are facing, a real emergency demanding celer ity. We should as speedily as possible di infact and sternize the skin with our u usl-skin antiseptic while the patient is being anexistenized. It is a wise precaution also to exist the edges of the stab wound as infection may lurk there.

Corge Tully Laughan (7) in reporting his

high. Some observers have placed the mortality at 50 per cent. Constantin (1) for instance gathered 83; cases in which operations for wounds of the heart had been per lorned with a total of 140 deaths a mortality of about 50 per cent. Dut I am of the opinion that this precentage is too low and does not represent consecutive cases. On the surgeons are ant to report their successful cases and

never published the mortality naturally would be higher A fair eshmate of cardiorrhaphies would be about 65 per cent mortality. There is no doubt however but that the prognosis in

The wa admitted to Roper Hospital on the afternoon of April 14 924 at 7 30 pm negro

a steady uninterrupte l stream of blood was com me about the size of an ordinary lead pencil I

ill it is was ou to the emergetcy room atti there fell down in a faint. His pulse at this time according to the interne was very poor and almost imperceptible lle was taken immediately to the operating room because the interne felt reasonably certain that some serious wound of the chest with

internal hæmorrhage bad taken place O my arrival at the hospital about 8 pm I found that the patient had improved some hat from his condition in the em rgency room. Hi pul e was 118 of fair quality respirations about 28 and skin fai ly warm. I could not at this time

and stopped the preding save for the fact that

uous The torn pleura was also sutured with

tle heart sound vere remarkably clear and distinct I ordered the patt at to remain t the perating room and stated that I would see him again in

s onally sighing. His pulle was imperceptable and blood pressure 78-50 Ny diagnosis non was that he had a serious intrathoracic hamorrh g and ery probably a wound of hi he i I deerd It operate at once

Wer the pati at had ben anastheti ed with

valescence with very rapid pule (140 160) and rapid re piration (40 60) for a few lays

On the fourth day the dru age tube was removed and on the ninth day the sutures were removed and a copious amount of scrum escaped from just under

the skin From 41 il 28 to May 5 marked dulne s wa noted in his right chest posterio ly high caused m to suspect pneumonia but on the latter late 360 cubic centimeters of clear serum was withdrawn by aspiration Again on May ri the Juliess as still note I and again the chest was aspirated with the result that 360 cubic centimeters of a rum vas with dra vn

At pres nt the patient has no complaints His

1 to 1 attent

RLFLRF \CLS

r Contantin Henri S g call t atment f h a t w nd J d ch 92 p 383 n nd I d ch oz p 383 Da Co Ta W ni fpenca d m th rt Mod C 15 17 17 4/20 3 FLS F

۱ n

5 Poole Ir tm t fhari woulds to the transfer of the pass of twees Lact Led on of

LALCIN SI - (I fth hart J Am M 909 I bruary 6 p 4 9

operati n. Howeve, the st rnum kept con tauth escaping from u de the retr ctor a d I f nalls ex cised its m iil third. In doing this the pleura n the nght sd wa torn into I quickly light d th int n l manim ry artery I n w had a very it expose of the perior relium and I not d the

DRAINIGL OF THE THORACIC DUCT IN PERITONITIST

TOUIS D MCCUIRE MD ROCHESD'S MINNESOTY

MHE purpo e of this experimental work was to accertain what relial dramage of the thoracic duct afforded patients with personnits. Previous work had seemed to show its value and I hid been led to believe that with this new weapon addid to the arms mentarium of the surgion personatis would no longer be the menace it had been in the past.

Dramage of the thoracic duct in cases of peritoniti is of course based on the a umption that in peritonitis the toxins and bacteria which are death bearing teach the circulation through this duct. If only an insignificant number of such bacteria and toxins come through the thoracic duct then their elimina tion would not be worth the cost in vital energy to the nationt of an oneration which in itself carries a slight amount of shock and which later robs him of nourishment view of this I attempted to a certain experimentally (1) whether bacteria which are injected into the peritoneal casity in case of peritonitis can be recovered from the thorack duct (2) whether the fluxl from the thoracic duct in such cales a toric and (a) whether rumals having peritonitis are benefited by lymph iticostomy

It is not able true that in c is of tien tonitis ib orption determines the life or death of the nationt. Many fluid and substances have been injected into the neutoneal cavity to determine the route of absorption therefrom for example physiologic solution soluble lyes colloidal silver lamp black bacteria milk Chine e ink blood oil and egg yolk Studies of the anatomy of the thoracic duct abound in the literature and wide variation in structure are noted knowledge of which a essential to ansone contemplating drunage of the thoracie duct for peritonitis The literature on experimental ligation or drunage of the thoricic duct in normal animals covers two centuries. The a leat lare arrows and commons as

port deaths following ligation or drainage of the duct in previously normal animals, the edeaths may have been due to infection Even with modern technique an occasional infection must be anticipated.

METHOD OF EXPERIMENTATION

Dogs were used for the production of fistular of the thorates duet. Rabbits were used to test the towarty of the fluid obtained from the thorates duet. Ether an eithers as used in all experiments requiring, operative procedures. Operative sites were shaved thorough by solized and draped with stemle tooks and wheets. Sterik operating procedures were carried on with the aid of two sterile nurse. The technique for the production of the thorough duet histille was that employed in the future of Experimental Surgery. The Mayo Foundation (48). The experiment have been duided into four groups.

Comp 1 Twenty four hour culturn of he cillus produgo us were diducted in 50 cubic centimeters of physiologic salt solution and injected into the normal peritoneal easity of each of 6 dags after the thoracic duct fistula hid been established and was draining freely All of the ly migh that drained from the thoracic fuct over a 5 hour period from the time of the injection was collected and cultured for bacillus produgosus. Cultures were made on houth agus plate and devito e agust and

In a case blood cultures taken 1 2 and 3 hours after the bacillu prodigiosus was in

Graub Traums to the perstoneal surface was considered as a possible factor in the absorption therefrom Accordingly the nert toneum of a dog was traumatized by rubbing the peritoneum both parietal and visceral with dry Lauze by bringing the intestines outside the abdomen and evno ing them to the air for several minutes, and by applying very bot packs soaked in salt olution to them By these means a definite ileus was produced Lorty eight hours later a thoracic duct fistula was produced by the technique previously described A 24 hour culture of bacillus pro dimosus diluted with so cubic centimeters of physiologic salt solution was then introduced into the peritoneal cavity of the dog under asentic precautions Cultures from the thorac ic duct continuously for a hours and again after as hours, were negative for the bacillus It seemed then that traums did not materially hasten absorption from the peritancel cavity through the thorage duct

Group 3 Little has been definited deter mined as to the ilteration of absorption from the peritoneal cavity in ea es of peritonitis. It was thought that absorption through the thoract dute might be easily demonstrated in eases of peritoniti even though not de monstrable from the normal peritoneal cavity. Accordingly peritonitis was produced

8 log A i c

closed However the micro organisms in the sigmoid were too virulent for this work for when the lymphaticostoms was attempted 24 to 48 hours later the dog were morehund and we lost a under the fir t few whiffs of ether given to perform the lymphaticostomy I less virulent degree of peritoritis was obtrined by opening the jejunum allowing contamination to occur and then carefully closing it After 4 to 48 hours a Ismohn ticostomy was performed Bacillus prodi gio us was then injected into the peritoneal cavity of each of these dog and culture made for a hours from the thoracic duct then cultured on broth dextrose agar and agar plate. The cultures were incubated for 16 hours and then allowed to stand in the sun

hight for 36 hours cultures were negative for bacillus prodigiosus. More important still the dogs all died and necropsy showed that they had died of peritority.

Group 4 Iovins from the peritonical crivity might be assumed to reach the circulation through the thoracic duct exenthough a definite organi m could not be injected into the peritonical crivity and recovered from the duct. It was determined therefore to test the toxicity of lymph obtained from fistular of the thoracic duct of dog with peritoniti. This toxicity could best be determined by injecting it into the circulation of a small laboratory animal and noting its effect. Small rabbits weighing about 800 grams were chosen for this purpose.

Thorace duct fistule were produced in the 4 dogs and lymph was collected in sterik test tubes contribing a mail amount of solution to prevent coagulition. Body temperature was preserved by keeping the test tubes in a waterbath. The lymph was then injected into the vein of a rabbit sear in amounts varying from 1 to 12 cubic centimeters at one injection. No effect whaters of the rabbits was noted in any of the rabbits.

Lymph from the thoracic duct of 1 dog with experimentally produced ileus was in jected into the vein of 1 rabbits err in amounts up to 8 cubic contimeters. No effect was noted although the ileus proced sufficiently severe to cause the dog's death in 48

Hiving ascertained that lymph from a normal dog and lymph from a dog with copermonally praduced ideas had no apparent effect on rabbits when injected intravenously the effect of lymph from dogs with pertonut was investigated Eight dogs with experimentally produced peritonia distults of the thoracic duct were used for this purpoe. Lymph was collected under stende precautions as in previous experiments kept at b xly hat in a waterbath prevented from congulation by the u e of odium citate oliution and injected intravenou ly into rabbit. From 8 to 25 cubic continuences were injected at one injection is

cubic centimeters being th average effect whatever was noted in 7 cases One rabbit however did have a reaction. It had been previously subjected to several injections in amounts varying from 8 to 15 cubic cents meters with no effect Twenty five cubic centimeters of lymph was finally injected in about a minute and the rabbit immediately had a severe tonic convulsion followed by clonic convulsions inhibition of sphincters and cessation of respiration The rabbat appeared dead for about 1 minute except that a faint heart heat could be palpated. Then shallow respirations commenced alon move ments returned and in 3 minutes the rabbit again appeared normal. He died a week later from an intercurrent infection. I am not cert in what c u ed the neculiar reaction to this

largest single injection. It might have been due to fat emboli. At any event it did not appear to bear any relation to a possible toxin in the lymph of the animal with peritoritis.

DISCUSSION

The great dissimilants of views and the conflict in findings and conclusions of vanous observers a striking. That there is shooption from the perioneal cavity directly into the subpentioned capillities the can be little doubt after reading the work of Starling and Tubbs. Hamburger Oflow Dandy and Rowntree Clark Bolton and Jutaam. The omentum too scene to play a part as a shown by the researches of Durham Buxton and Torrey. Thick and Embleton and Shipley and Cunninghum.

Lymphatic drainage from the pentoneal

Durham MacCattum Burton it a o and Cunningham Beck and Thicle and Embleton find absorption through the thoracic duct Costain considers absorption of the My own

Costam the rreso

appendix and base of the appendix are tied

off will die from peritoritis secondary to a gangrenous appendix, if no procedure to aid them is undertaken. Williamson working in this laboratory at the Climic obtained very

come to tener them. Kost and nixton and Torrey believe that there is an increased phatocyto is in the evudate of pentonius which engulis many organisms. Rost also states that the pentoneal fluid has the power to clump and dissolve and that the leucocytes and the endothelal cells produce ag glutinus preciptins and bacteriolysis Bol ton after some very chaustive experiments decided that the kimpbrite route through the ught lymphatic duct was much more important in the drainage of the peritoneal cavity than that through the thorace duct all this is very confusing and one wonders

which avenue is the important one My experiments would seem to minimize the importance of the thoracic duet in drain age of the pentoneal cavity. I was unable except in a case to recover bacillus prodi groups from the lumph of the thoracic duct after injecting it into the normal peritonial cavity and not once in dogs having peritoni tis. It must be admitted however that the bacteria could possibly have been killed in the perstoneal cavity thich would account for the negative cultures of the lymph Honever the lymph from the thoracic duct in cases of peritonitis was not toric to small laborator, animals and finally does with perstantis did not seem to be benefited in the least by draininge of the thoracic duct as they all died It is possible but not proved that certain types of bacteria or toxins do pass into the lymph in which case lympha ticostomy might be beneficial

In connection with dramage of the thorace duct for personnis I wish also to call attent to the great variety of thorace ducts its frequent amountaines its variety and often multiplanty of terminations sometimes on the right and sometime on the left its frequent anastomoses with blood vessel in the chest and its extensive anastomoses often with the right lymphatic duct. All

these factors bear on the advisability of draining the thoracic duct to secure drainage in pentonitis Many former workers also found that previously normal animals fre quently died following lymphaticostomy These deaths may have been due to infection and we may still expect an occasional death from infection. The thoracic duct has been drained for peritonitis in this clinic twice (1923) but both patients died from peritoritis with no apparent change in the course of the disease following the lymphaticostomy

CONCLUSIONS

- z Bacillus prodigiosus injected intra pentoneally in cases of experimentally produced peritonitis could not be recovered from lymph from the thoracic duct
- 2 Lymph from the thoracic duct in cases of peritoritis in dogs did not appear highly toric comparatively large amounts producing no effect when injected intravenously in rabbits
- 3 Dogs with experimentally produced peritoritis were not benefited by drainage of the thoracic duct. All of them died
- 4 Much experimental work must still be done before surgeons may perform with confidence lymphaticostomy in cases of peri tonitis

BIBLIOG RAPHA

BECK

```
BOLTO
       vit
3 B ESCI
4 BRINT
      d t
      tl
  BUNTING
      lymph
    BUTLEA
   MdR se h o 3 53 56
Buxrov B II d T ax J C theorpt f
th pentone 1 ty I Absorpt o 1 p 1 d
    upen o J Med R se h 1906
```

1022 IS 248 25 14 CRUICASHANK W Quoted by D 1 15 Cusin a H W Operat e wu da f th th rac duct R pot of a case with the fith luct
Am S g 1894 xxv 719-7 8
6 D xpy W F and Ro wrake L G P t length

pl ale Res rpt on m h Beih g n zu ter Lag rungsbeh dlug B t kl Chir 1913 I it \$39-507
17 Davis H & A t t ti al t ly I the th rac duct

nm Am J A at 19 4 9 5 x 11 44

8 Dieme Baoeck T Qu ted by Davi

9 DURHAM H E The mecha m of reacti n t peri t al fection | Path & Bacteri | 1807 335 382

15 11 A.

L. (H On the It I blood t b mph to

t 900 60h-6c8

g g timeg d Int An t 895 1 3 7 359 33 NH A O t d by Da 34 O to y W N In k V um 1 h f n th ber 1 R sorpt o

d B schlocht \ 1 I d g Ph 1 1804 35 1 TRULY C 1 O 1 11, D 30 PIERS (1 11 m ed Ihl lib

I pp tt g o
P TAM T J Th 1 g pent
m mbra \ \text{M J 1 h} \ \ \ \ \ gpent um ad ly g 011 0 3

848-565 RA ME Quidb Bit 35 39 RECKIN GRACSE V F 7 lett sort path A at 853 x 7 o8

Rosv P th l gral phy logy (Tra 1 t d 1, R m n) Fh lad lphia lil k t t0 3 238 pl SCHWEIGGER SEIDEL d Dete Quot d by B it

from f secret to the e C 1
Physol 894 i 49-55
TELE F II d I MRIF ID I fect a 1 les y A 11 On alson 1

Phys of sout 40-55

44 T TELE F II d I MRIF 1)

of pre I bat n I nfect

Med (Path) 9 4 1 69

45 Topp R B Qu t d by 1) Loc R y Soc

¹¹ Cos At W A Septic beorpt n dil se sens t Can dan M A J 10 2 780 79

Lymph ticost my in pent n 1 5 78 (6) pent t & Ohnt 1913 x 365 36

4' We have C. Chirur, sch. Bem rhing u.b. d. Lenton all ochl. m.the. 1. Bru. k. bilgung. dr.U. t.m. Arh. l. kla. Chir. 1877. vv. 5.

47 William o C S P sonale mmu catto

40

SURGICAL COMPLICATIONS OF DIABLES UNDER INSULIA

BY LINE I CACHE MILL NEW YOR

TIII reluctance of the surgeon to one rate on patients with diabetes has been due to the fear of coma and of the dif ficultic of wound healing. Much had been accomply hed by the practice of undernutra tion and a proper regard for the limit of riety as shown by ble of chemi try after e wide-preid that of in ulin at may furly be said that by its u c supplementing dietars regulate a the urgical hazard pecuhar to diabetes have been overcome this statement hold true only when due con sideration is given to the metabolic ibnormal ities which are present or potential in dia betts and its complication, and only when pain taking attention is paid to the manage ment of the individual patient. In the brief di cussion of principles and procedure presented from the internet point of view it vill be obvious box important are the surgeon's judgment and technique he choice of operation and anasthetic and how much we rely on the accurate control of our treatment furnished by diet kitchen and chineal labor i tors

I rom a prictical standpoint the urgi at condition which d man I operation in the diabetic may b divided into two groups. (1) those which are accompanied by indection and (2) those in which infection or sep 1. I obsent. The litter group of patient, who for cample require the removal of ton il. an enlying prostate, a uterna-tum or may be considered to pre-ent the u will problems of dribetic treatment with a time allowance sufficient for concrative preparation. The epatients other things being equal may be expected to have an unex-ential course.

In the first group, the patients who come with the complication of injection there are frequently presented the mo t difficult problems of diabetic treatment over and above the surcical condition which like gangrene or appendicate may be grave or urgent. It i the unexplained diminution of the ability of the body to utilize carbohy drate which i the de turbing fictor introduced by infection This los in tolerance is directly a sociated with the fulure of insulin in greater or less degree to play its role in the conversion of gluco e in the body to an assimilable form Normally adequate insulin dosage becomes in sufficient and relatively enormous amount may be given with small effect. The con sequent failure of the body to burn sumir is followed inevitably by faulty combustion of fat supplied from the body stores if not by the diet When Leto is comes with infection coma not for behind

in ab cess or cribinacle under novocain or the removal of in appendix under gas and oxygen size thesia a mild diabetes which by reason of the infection has become severe and even life threatening may be reconverted to its former beingn state. That it is an interabolic metabolic metabolic more only in the converted to not only.

not only se the es therapy

Even in the more serious cases experience

of infection out of the way the vigorous use

With these general considerations in mind we may turn to the methods of their application to the patient. These may be discussed under the heads of diet of insulin dosage and alaborator, control alls odosely interrelated that one cannot be considered without the others.

Insulin permits a wide latitude of bodils nutrition but it has been our aim to combine the undoubted benefits of a plan of under nutrition with the conservative use of the nancreatic extract. (1) In the presence of sur meal complications we take no liberties with high fat ratios however helpful they may be in diets under other circumstances and adhere in a proportion of fatty and to glucose expressed in grams not greater than 1 5 1 (2) Temporarily before operation and immediate is after the carbohydrate may be rayed much higher with a corresponding increase in in sulm in order to di pose of acidosis promptly From the start protein is usually given in the proportion of one gram per kilogram of nor mal body weight

Since glycosuma and ketonuma disappear under favorable conditions within 48 hourafter an adequate rigime of thet and insulin has been established we come to rely on blood chemistry as the guide to treatment. Not

o 35 per cent and the carbon diovade combining power above 400 volumes per cent (3). It is not unusual even after a relatively brief anvishesia to und a depression of 15 to 20 volumes per cent in the combining power so that the determination when there is any portance. When local anvishesia is employed these margins of safety may perhaps be extended but it a swell to remember the possible torue effects of the unburned sugar and fats especially on heart muscle and peripheral circulation and impoen o avoidable burden during a time of stree.

I ethap the only general rule for the u c of in ulin that may be laid down is to give a

quantity sufficient to keep the blood sugar within normal limits or for practical pur poses between or and or 18 per cent. By re manning above the lower margin brosely

level of hyperglycomia. It has been con vincingly shown that in tissue cultures the presence of an excess of pluce a in the medium.

tion is unmistakable

One or two grams of sugar in the unne and to milberams per 100 cubic centimeters of blood are commonly accounted for per insulin unit in an uncomplicated case. But at the other extreme under the influence of infection or some other anomals of metabolism so units may be required to reduce blood sugar by 150 milligrams. In practice it is our meth and to hold the dict constant or even reduce it by degrees while studying the effect of in creasing doses of insulin on the blood sugar If hen this has once been lowered to normal we feel that firm ground is beneath our feet Subsequent blood sugar determinations will tell us whether the balance is being maintained and will guide us in respect to necessary in creases in food intake the return of carbohydrate tolerance and the need for unsulen

The case reports which follow illustrate some of the typical problems of diabetics with surgical conditions

Case 1 Obesity and mild diabetes Abscess of Line with temporary marked loss of tolerance Rapid healing with insul n

C H male age 5 Danish was referred by Dr E M Foote aft r finding 5 per cent sugar in the unne when the pati in presented himself for the treatment of arreose exzema of the lears Th d l oth legs was a chronic varicose eczema with a few small areas of ulceration

CASE 3 Mild diabetes of 30 years duration.
Prostatectomy diet and insulin
Thus man age 22 German manufacturer the

centimeters and contained 4 8 grams sugar. But on November 20, the left knee became tender rel and

hydrate 100 grams protein and 50 grams fat and had not felt better for 20 years Incidentally the skin of both legs had become frm and smooth though deeply pigmented

Case a Disbette gangrene with sepsis and ca chexis. Amputation of thigh. Uneventful healing of wound and return of tolerance and r diet and insulin. trembling and wealness announced the onset of a reaction he feel ned orange juice. Glucose by stomach tube terminated the attack. In general the

mained it &t out 45 unit fore while maintaining the caloric intake and the same amount of protein in the ration carbohydrate

ution

10

The third day after operation slight icterus was

after admission was o 21 per cent carbon dioxide combining power 59 volumes per cent The urine was sugar free throughout his hospital stay blood sugar was o 13 on February 26 and the same

closed a carcinoma of the head of the pancreas with marked dilatation of the common duct and gall bladder There was marked fibrous replacement throughout the body of the pancreas and the islands on March r when the patient was discharged Case 7 Obesity diabetes gangrene of foot Amputation Healing under large doses of insulin and restricted diet

were diminished in number Case t Diabetes of several years standing 1 Z femal age 55 German a cook was ad rene one had had

showed an obese woman veighing about 160

Þ

m

ne

OH HERE C

di closed a ruptured ga grenous app ndi patient was an overy eight rather flabby individual and sugar was pre ent in the urine on admission He died on February 11 after a stormy cour e be

In e

cau e of p

tı n d gr the C

co1 Lust 25 but surpri ingly enough though the

to th ur s is a moutin effect was studied during a fast lay on September 10 The early morning blood sugar 1 as 0 37 per cent At 2 o clock after the first dose of insulin given at o a m the blood sugar

TABLE 1 -- PATIENT A 2

there was no glycosuma or discette acid and th

٠..

	D t	CPF	Chn			1
	2,1	C.p. f.	SE	Dac	lood 5	3 45 60 60
	A g 12		100	D ==		0 1
		36 33 35		+	0 37	13
	. 4		200	++	0 8	1.5
	12		150	4444	0 3	2
	10	605 3	00	+		3
	8		1 %		0 37	45
	2		gm		- 0,	766
	3		6 5 gm	۰		
	8		4 6 800			~
	8		0 5/	0	0 27	60
	. 9		- 7	ŏ		00
	Sept 3	36 5 50		v		75
	Sept 3	20 2 30	0 0		0 19	75
	· ·		05/	0	27	7.5
			0 3/	•	0 37	75
		305 3		0	0 15	00
					0 5	óc
	3		0	0		75 75 75 99 99
				a	0 19	3 0
	9		0	0	0 5	i
n	Oct 6		0	0	0 16	
n. S	. 9		0	ō	2	30
	Okt 6		0	ō	0 6	120

o

5 L F 1 almi sion I burry 2 0 4 I det of a grams

> I fec to ad ac 14mputs so CO: 60 1 L pe firenking d

b

both legs was a chron c varicose eczema with a few small areas of ulceration.

Case 3 Mild diabetes of 30 years duration Prostatectoms | Lucyentful convalescence under diet and insular

This man age 72 German manufactu er the patient of Dr A R Stevens was admitted on July

b man in fair nutrition weight 135 pounds he bt 5 feet 6 inches. The urine on admis ion contained 1 2 per cent u ar with a heavy trace of albunun

t

noisulphonephthalem output was go p r cent in a
hours. On a d et of 60 grams carbohy itate 60 grams

removed on july to will v

by drate 100 grams protein and 50 grams fat and bad not felt better for 20 years. Incidentally the skin of both legs had become firm and smooth though deeply pigmented

Case 2 Danbeite gangrene with sep 14 and ca chexia Amputation of thigh Uneventful healing of wound and return of tolerance under diet and

The course of F C a Scotchnoman ag 66 all mitted to the Polychine Ho n ! 1

u e suitr trem a snnounced the onset of a reaction he declined orange to ce Glucose by

cent i hysical examination showed an it der noughed a d weakened old m

Under this regime insular function return e considerable digrie so that this woman was dis charged on a diet of 60 grams carbon di grams of 7 ŧ

Bre kung d

The third day after operation slight interus was

after admission was 0.21 per cent carbon dioxide combining power 50 volumes per cent. The urine was sugnified throughout his hospital star. The blood sugar was 0.11 on February 36 and the same

on March r when the patient was discharged

Case 7 Obesity diabetes gangrene of foot

Amputation Healing under large do es of insulin

closed a carcinoma of the head of the pancreas with marked dilatation of the common duct and gall bladder. There was marked fibrous replacement throughout the body of the pancreas and the islands

l det r stricted to 60 grams earbohydrate 50 grams protein 30 grams fat calonics 810 and 73 units of in subin a day did not suffice to clear up glycosuma A thigh amougation was carried out by Dr Thompson

patients as an overweight rather flabby and vidual and sugar was pre-ent in the urine on admission

u its daily. Insulin effect was studied during a fast lay on September 10. The early morning blood sugar was o 37 per can. At 12 o clock after the first dose of insulin given at q a m. the blood sugar TIBLE I —PATIENT A. 2

blood must raise of precent. Three days later the blood sight is on a pie cent and days later the blood sight is on a pie cent and days later the five sight in the sight in t

both legs was a chronic varicose eczema with a few Case 3 Mild diabetes of 30 years duration small areas of ulceration

novocum the temperature became normal and the

blood sugar was 0.33 per cent but there was no nitrogen retention (non protein nitrogen 15 mills grams usen antrogen 15 mills grams use a colours of mills grams, and the ple noisisiphonephilaiem output was 90 per cent in 2 hours On 4 d et of 60 grams carbohydrate 60 grams

hy leate 100 grams protein and 50 grams fat and had not felt better for 10 years. Incidentally the skin of both legs had become hirm and month though deeply pigmented

Case 2 D their gangrene with seps 2 and cachesia Amputation of thigh Un entful healing of wound and r turn of telerance under d t and insul n

Under the regime insular function returned to a considerable degree so that this woman was descharged on a diet of 60 grams carbohadrate 50 that Sh

on following me mile the blood sugar at o 18 p ? cent and below

TORSION OF THE GREAT OWEN TUM

BY THOMAS I MILLIN MB FACS POESTELLO IDALO

LARGE number of case of torsion of the omentum have been recorded the omentum nave since Marchetti in 1851 first reported one (Mauclaire 30) and Oberst (36) again drew attention to the subject in 1882 How ever it is rarely considered as a pos ibility by the great majority of surgeons when making

mal omentum is free from pathology of what ever kind torsion or rotation would probably never occur and it is remarkable that all though omental adhesions are very common torsion of the structure is very uncommon (Muller 35) However the anatomy and physiology of the omentum is such that it would eem to be particularly prone to twists and it is almost certain that the normal omen tum does undergo such mos ements frequently but just as readily returns to normal after

ture completely or to compile an exhaustive bibliography it is interesting to note Corner and linches (11) statement that by 1904 there were 53 cases on record and Block and Darmstadter's (5) remark that Bookman had collected 131 cases up to 1915 fuller (17) goes into the embryology of the omentum and states that it is fully developed in man in the second year after birth. He remarks that we are indebted to Meckel for the earliest in formation concerning the orgin. It passes into the pelvis in 25 per cent of male and 50 per cent of female ubjects Lockwood quot ed by I uller ob creed that in 50 per cent of cases examined under 45 year of age the omentum could be brought diwn to the 4. year

I he tendency of the great omentum to alter the currents within the peritoneal cavity led Tait to designate it the arbiter of peritoncal

it to bass

tides and its function in checking peritoneal inflammatory conditions led Robinson to name it the policeman of the belly icces ory omentum may be the site of vol vulus as in a case reported by Cullen (12)

The functions of omentum are Circum cribing and limiting infection within the abdominal cavity

2 Protection by wrapping around dam used areas

3 Protection by plugging openings in hol low viscera or the abdominal wall

It po sesses a wide range of motion nor mally floating free in the abdominal cavity and the experiments of E de Renzi and Boert (44) show how in a few hours the encapsula tion of other structures takes place when de prived of their blood supply

PATHOGENESIS

Torsion in cases wherein the omentum has in ets distal end a mass which is free or has become free through taisting Nearly every cale of reported tursion of the omentum was as o ciated with ome form of inflammation cither within or without the abdomen as in a hernia (Luckett 29) Shoenholzer quoted by They enard (sa) says categorically tion no torsion. That hernia plays an im portant role in the cau ation of omental tor sion is evident from the large percentage of reported cales in which there has been an a octated hernia ft i u ually the right in guinal variety which has been of lon standing and u uaffy reducible. Vignard and Ciran deau (56) reported 20 cases of torsion incumal hermy being present to times. There was no instance of femoral hernia. In Stewart group herman we precent in all but five of as collected cise Corner and funches (11) re port 47 hernix pre ent in 53 cases. In none of them has a femoral hernia been pre ent. One of the danger of taxis in strangulated hernia i omental tor ion (Wat on 55). The presence of a hermal sac into which the omentum over a course of time makes its entrance and exit

nas 0.2 per cent and at 3. pm after the non-dose of 25 units the blood sight win 0.2. This 50 units of insulin in the pain it had 17 dore 1 blood sugar by 3.00 mill grams 18, further reduced body to the same and 17 in in the chart (1.2 te 2) and 17 in in the dosage of insulin to 1.20 units per cell 3. (1.20 to 2.00 to ormules before med 1) the blood sugar was finally to ught d in 1 no normal of 0.00 to 10 units of 10 units

(venin

was re and the nat morning the blood sugar was 0.26 p. r. cent. The wound bended by pumary intention and tas entirely cloud on O tol. r. 12. CASE 9. Dirb. t. #

s st

pt dill 40 on alnisien Sugar vas found in the uring 5 feet pri touly. It fit vas so marked as so to sugge, te bronce en first. Amputation va lon by Dr. I. H. Ruwell on April 4 tous, and it it is interested along on a let of og am eith bydrate so grim pritin 60 gr m.

been entire blood sugar m st sat fi pl nte l by branes The subsequent history of this patient whom I did not see again has since come to my attention. She was not kept sugar fee by her physician and gangrene of the other leg supervined. Finally amputation was careed out and the patient died in coma 24 hour later. Although the operation was done by a competent surgeon it was surprising to learn that no laboratory examination were made either before or after the operation.

The lesson is that the clo + --

SUMMARY AND CONCLUSIONS

By the use of properly balanced and restructed detes and adequate doses of insulincarbohydrate combustion sufficient to present recidoss may be minimaned Similarly the level of the blood sugar may be kept low that providing, an essential basis of sati factorwound healing. In general infections should be given the benefit of early operation from the standpoint of the diabetes a much asfrom that of the sureact condition.

The welfare of the diabetic patient requiring surgical operation demands respect for the principles of metaboli m in diabetes and the method of their application

RESI PENCES

Let F. M. 15 to Rt. J. W. J. M. L. R. B. S. S. G. G. L. B. S. S. G. C. R. L. T. V. J. K. M. J. G. S. T. S. WOO YER R. T. K. T. W. B. L. L. W. M. G. S. T. S. WOO YER R. T. V. H. L. W. M. G. S. S. S. WOO YER R. T. V. H. L. W. M. G. S. S. S. WOO YER R. T. V. H. L. W. M. G. S. S. S. WOO YER R. T. V. H. L. W. M. G. S. S. WOO YER R. T. V. H. L. W. M. G. S. S. WOO YER R. T. W. H. L. W. M. G. S. S. WOO YER R. T. W. H. L. W. M. G. S. S. WOO YER R. T. W. T. W. H. L. W. M. G. S. S. WOO YER R. T. R. T. W. H. L. W. M. G. S. S. WOO YER R. T. R. T. W. G. S. W. G. W. G. S. W. G. W. G. S. W. G. S. W. G. S. W. G. S. W. G. W. G. W. G. W. G. W. G. W. G.

TORSION OF THE GREAT OMENTUM

BY THOMAS I MULLIN M.D. IACS TOCATEL O. IDAGO

ALARGE number of cases of torsion of the omentum have been recorded since Viarchetti in 1851 first reported one (Viauchur, 30) and Oberst (36) agrin drew attention to the subject in 1852. However it is rarely considered as a possibility by the great majority of surgeons when making

mal omentum is free from pathology of what ever kind toxono or rotation would probably never occur and it is remarkable that all though omental adhesions are very common torsion of the structure is very uncommon (Yuller 33). However the unitomy and physiology of the omentum is such that it would seem to be particularly prone to twists and it is almost certain that the normal omen tum does undergo such movements frequently but just as readily returns to normal after

ture completely or to compile an exhaustive bibliography it is interesting to note Corner and linches (11) statement that by 1904 there were 53 cases on record and Block and Darmstadter's (5) remark that Bookman had collected 131 cases up to 1915 Fuller (17) goes into the embry ology of the omentum and states that it is fully developed in man in the econd year after birth. He remarks that we are indebted to Meckel for the earliest in formation concerning the organ. It passes into the pelvis in 25 per cent of male and 50 per cent of female subjects Lockwood quot ed by Fuller observed that in 50 per cent of cases examined under 45 years of 1ge the omentum could be brought down t the

tendency of the great omentum to after the currents within the peritonical crivity led Tait to designate it—the arbiter of pentonical

tides and its function in checking peritoneal inflammatory conditions led Robinson to name it the policeman of the belly. An accessory omentum may be the site of vol vulus as in a case reported by Cullen (12)

ins as in a case reported by Cui

The functions of omentum are

1 Circumscribing and limiting infection
within the abdominal cavity

2 Protection by wrapping around dam aged areas

3 Protection by plugging openings in hollow viscera or the abdominal wall

It possesses a wide range of motion nor mally floating free in the abdominal cavity and the experiments of £ de Renzi and Boch (44) show how in a few hours the encapsulation of other structures takes place when depended of their blood supply

PATHOGENESIS

Torsion in cases wherein the omentum has in its distil end i mass which is free or has become free through trusting. Nearly every case of reported torsion of the omentum was associated with some form of inflammation either thing. he is became

tion no tor ion a mat herma plays an im portant rôle in the causation of omental tor sion i evident from the large percentage of reported cases in which there has been an associated herma. It is usually the right in guinal variety which has been of long standing and usually reducible Aignard and Giran deau (56) reported 20 case of tor ion inguinal hernia being pre ent 10 times | There was no instance of femoral hernia In Stewart 5 (52) group herma was pre ent in all but five of 13 collected ca es Corner and Linches (11) re port 47 hernix pri ent in 53 cases. In none of them has a femoral herma been present. One of the danger of taxis in strangulated hernia is omental torsion (Watson 38) The presence of a hernial sac into which the omentum over a cour e of time makes its entrance and exit

with constant irritation, results in a thicken ing and inflammation of the omentum at its lower end forming a mass like the bob on the end of a plumb line Jaboules quoted by Aimes (r) explains the torsion as follows as the omentum is in constant motion it has a tendency to roll and after the first twist, the resulting congestion increases the volume of the mass causing a new rotation. Cathelia (7) calls the process a vicious circle in that the larger the mass becomes the more it is ant to twist and the more it twists the larger it be comes In addition to the enlargement of the tip of the omentum due to irritation in a her mal sac the volvulus may be enhanced by a number of other nathological proces es result ing in the formation of a mass. Conditions which might readily lead to torsion are sar coma (Downs 13) linoma (Mcredith 32) cysts (Waldy 57) (Wells 59) (Segond 48) colloid discuse (Bowen 6) en lotheliom i (McFarland 31) (Morton 34) and hydated cy ta (Considine 9) (Owen 37)

Torsion in eases in which the distal end of omentum is adherent in Ieruial sac or about inflammatory area. In this type of tor ion the tip of the omentum being adherent in the pelvis because of the pre-cace of an inflam

corners and then twiting it. The 1881s in this case which are usually two began at each end and progress toward the middle whereas in the first type the solitary twist ordinarily begans at the lower extremity and progresses upward. The theory of Bazy (a) who after a study of the physiology of the omentum con

twists uithout being the site of a mars or being adherent in the pel is. In the purely intraabdominal variety of torsion of which Rudolf (40) collected 23 instances the explanation given by Payr (39) seems logical. After a very ingenious series of experiments he con cluded that because the vens are larger and more tortuous than the arterus when the vens tre compressed by a kink of some kind they become turged and full of blood. The arteries form a tense cord about which the omentium turns and one started the twistin continutes with resulting obstruction to the circulation and subsequent gangene. The executiation and subsequent gangene The incommentation and authority and the free manufactory, and is characterized by thickening and adhesions. Continuation of the proc (as leads to vascular obstruction hemorrhage and death of the organ. In certain instances the omentum has time to graft itself on a viscus or the panetal pentoneum and so ob

it is adherent by a throus cord. The hypertrophy of the omentum may be great Hockenege (21) resected a portion as large as an adult head Baraca () one we hing one the Lucas championniere (28) 645 grams Hawkes (o) removed a mass the size of two first and Woolsey (61) removed an omental mass as large as a grape fruit. Hotchkiss (22) in discussing Erdmann's (14) paper related an instance in which the portion removed weighed 5 pounds. On the other hand atrophymy occur to such a degree that the omenium appears as a thin rolled up cord crowing the intestinal colo (Tremoduces 55).

When the process is slow and gangrene does not immediately develop the torsion may be so complete that the omental tumor becomes completely detached as occurred in a case seen by Grant (10)

CLASSIFICATION

That of Aimes (1) is comprehensive and is as follows

- I Partial torsion
 - a Intra abdominal
 - b Intrasaccular
 - 1 In an empty sac
 - 1 In an occupied sac

II Total torsion a Abdominal or omental volvulu

 En masse (intra abdominal and intra saccular)

- III Complex torsion
 - a Associated with tumors of omentum
 - 1 Cysts Sarcoma
 - b Associated with other lesions
 - Appendicitis
 - 2 Cysts of ovary
 - c Torsion of inflammatory tumors Reduction en masse

Payr quoted by Wilensky (60) makes a simpler clas ification

- I Torsion without co existing herma
- a Of omentum only
 - b Of omentum and adherent viscera
- II Torsion with co existing herma a Of intra abdominal portion only
 - b Of hernial portion only

purgation Morestin (33)

- c Complicated cases
 - 1 Involving both portions 2 Either type associated with retro grade incarceration

Torsion of the omentum may also be classi fied as acute or chronic primary or secondary Among the immediate causes are direct trauma of abdominal wall Cernezzi (8) coughing Bayer (3) efforts at lifting Forgu Lapeyre (16) bicycle racing Thevenard (54) dancing Pretsch (41) hard labor Reidel (43) taxi of hernia Lejars (27) violent

SYMPTOMS

Swain (53) in commenting upon the long list of possible causes of acute abdominal trouble states that in every case the first symptoms are about the same whatever the cause may be not being instituted by the distinctive characteristics of the lesion but by the effects of the lesion upon the peritoneum manifesting themselves by pain comiting

effect of torsion of the viscer; upon the ab dominal sympathetic and its manifestations of a secretory order vasomotor heat regula tory respiratory and circulatory order ac counting for the symptom complex in such cases Price (42) states that acute torsion of

the great omentum occurs with sufficient fre quency to be considered as a possibility in a typical acute abdomen especially in mile pa tients with a pre existing hernia and a low polynuclear count

more or less troublesome and often becomes irreducible just before the onset of torsion The beginning is often acute but may be de veloped by a series of steps or crises more or less apart being due to some of the slow incre ments of torsion forming the twists (Corner and Pinches 11) I ain which is rarely agonizing is the prominent and the only con stant feature. It is usually located in the re gion of the hernia and radiates upward Often it is increased by movement and relieved by rest. There is more or less tenderness and as a ruk slight abdominal distention Careful investigation may reveal the presence of slight movable dulness in the flanks as the condition progresses. Nausea is nearly always promi nent Vomiting may or may not occur but is rarely severe or continued Corner and I inches (11) state that it is present in only 35 per cent of the cases. There may be com plaint of a moving or twisting sensation (Smythe 5r) The bowels are usually open kas and frees being passed and diarrhora may occur The temperature is slightly elevated and the pulse as a rule accelerated. Often a mass or indurated area can be felt in the right thac region It may be elongated and movable laterally and is usually tender Mauclaire (30) noted that the whole region from the that fossa to the scrotum became prominent Gillette (18) thinks that many obscure ab dominal pains are due to omental torsion

DIAGNO IS

T tio

stır torsion is considered the diagnosis should not occasion great difficulty in a typical case. It is most commonly confused with acute appen dicitis with ab cess The following points should enable one to differentiate the condition

Tors: n of the Omer ture
A fit tory of crises of
cramp-l ke pain and in
discstron over some

years

lee Largest number
in fifth lees le

See Nearly all males

Herma of the inguinal type present in a larg proportion of the cross usually Hong standing o an empty hermal sac I in a unity lelow the

umbilious instead of around it and lat r the pain is most severe in the mil abdomen and hernia in tead of about McBurney's point Comiting frequently

precedes the pain and is rarely marked Tenderness and rim i

Tenderness and rigit ity as a rule n t marked usually more g neral

Tumor present carly and may be moveral from sil to sil II is mor longat land situ atch more too a dith mid line and do not a tend to the lateral border of the pelvis. There is usually nor no free manes to it out rade.

Leuco vies as a rule not greatly mur sel As a rule no history of recurring attacks or at lat not more than a

Earlier between 15 and 45 Incid nee more count

ly divided

Herma—no relation

I am usually about th umbility and later lo calized about McBur ner a point

toming most often follows the prin

T nderness and rigid ty usually plom nent and more localize in the right that force

Tumor appears after a or 3 days tatel movable

l eucocites u u lls ; crea l tr 15 000 to

PROCNOSIS

When submitted to early operation records to the cord a mortility of 13 2 per cent in 53 cales and Viller (53) states that the death rate 1 typer cent lower those value from cases seen when the condition was first being recognized and Corner says.

There are few conditions which show so small a mortality in the brist chapter of the thistor. At present the mortality hould be practically in Gillette (18) performed an autopsy upon a man whose feath had been caused by gastire and colonic himorrhage both stomach and bowel being filled to distention with blood. Embolism was the cause of

death in a case recorded by Pener (40) In others the fatal result has been due to infection of the gangerous mass of omentum peritomits or obstruction of the infestine Persease of hemorrhage sub equent to torsion or of hemorrhage areas constitutes a danger the, being evaly infected when in Provinity to suppurative foor or adherent intestine. The torsion may so shorten an adherent powerium that the colon becomes

inguinal ring, and Kriske (23) had a patient in whom obstruction of the transverse colon was due to a torsion of the omentum following failure to revirange it after the Trendelenburg po ition has been used. When the conduction is allowed to go on to its natural conclusion detth occurs. There are instances however of partial torsion in which there occurs a succession of craese feeding to digestive trouble and abdominal pain lasting over year.

TREATMENT

The treatment 1 of course always operative and 3n inci on large enough to explore the cinir, omentum should be made. The potability of an accessori omentum being present should be kept in mind. Simple in twisting will not do as his been remarked by keel (49) Ritter (45) miself and others. It is nece sary to recet all of the twisted por tron spaning as much of the omentum 3 can possibly be also set for in in Its nece sary however to be sure that in removing on twisted portion another one his her up 1 not overlooked as in a case of Eisel berg and

and the

nd when ne The in thick

omenium

clumsy mases but in ections which can be included in a reasonable mas and the cut ends should be overed or so turned in that thes do not present raw stumps to become



Far Cer Enire ment m to td ted

processes—cysts tumors and herma which should be treated as indicated. In the opera tive treatment of herma one of the advantages of repaining the herma from within as advised by La Roque (24–25) is the elimination of possible torsion due to an adhesion and by including a up of omentum in the ligature of the sac at its neck as can be done of the control of the control of the control of the con-

condition of the omentum in the abdomen Smith (50) reports finding inflammator changes in 37 out of 250 inguinal herria sacs removed at operation. Torsion should be looked for carefully in all epiploceles of long standing particularly if there has been a his tory of recurring attacks of abdominal pain and more or less digestive disturbance over several years. It is possible to overfook, a

when operating upon an omental herma with symptoms of strangulation is this if the neck of the omentum is easily moved within

of the centents of the sac should be looked for (Corner and Crant 10) At the conclusion of all ab lominal operations in which the

t

its normal position over the bowel. A rolled up omentum is more apt to become twisted than one which i normally placed. Upon opening the peritoneum the escipe of a data bloody fluid has been very frequently noted. This should always suggest to the operator first the possibility of free intra abdominal hemorrhage and second the opang of blood from some twisted viscues or omentum.

SUMMARY

t Torsion of the omentum occurs with sufficient frequency to be considered as a cause of obscure abdominal pain

2 Exploration of the abdomen should al ways include an investigation of the entire omentum

3 In the treatment of hermre care should be taken not to include the tip of the omentum in the ligature on the neck of the sac and whenever it is necessary to resect a part of the omentum all raw stumps should be small and turned in or covered so as not to become adherent

Case: One day in the summer of rors there ame into the Rec ing Ward of the Pennsylvania Ho patal a man of 13 who had for 3 days com plan 1 of seckening pa in this abdomen This was accomp med by almost constant nausea and occa sonal voint ing Hi illines had begun with abdom inal disc mfort while he was at work and became mo e

SURGERY GYNECOLOGY AND OBSTETRICS

the above

Operat on Kammerer incision When pentoneum was opened a small amount of odorless bloody fluid escaped. A purplish brawny mass was seen just be meath the wound. It proved to b the omentum which was adherent at its lower e tremity to the

and the sold viscera were apparently normal in size and outline. A mass roughly spherical and

once

an uninterrupted recovery

Since seeing this patient I have operated upon two others presenting similar symptoms due to torsion of the omentum but each show ing some unusual feature

CASE A man carpenter by occupation 3; years old complianted of pan and tendences in the right line fous. For no jears he had on the right line fous. For no jears he had on the right and perins on the right tall if the quently extended for the part of the par

Physical examination showed a thin mu cular adult male Temperature 101 pulse 96 white blood cells 14 000 The abdomen was slightly dis

more sever with each attack

I hysical examination showed a pile underso r ished young white woman Examination of the abdom n shows 4 inch cueatrix thr ugh the lower part of the right rectuat the lot or angle of which there is a firm tense attemely tinder rounded reducible swell g the size of a walnut Pressure

right (flowan tube Apparently the tube on e ch s de had b en grasped t its middle ad pulled through the r clus muscle d fied to the outer sheath m order to susp ad the ut rus A section f h b n emoy do each sid

over the right lower quad ant The right built canal was not occupied by the he mail mass but the external ring va enla g d and te derness was marked when two fingers were meet d through the

Diag osis of inguinal h in with an flamed ap pendix in sac v s m de

e ery uneve u

BIBLIOGRAPHY		33 - 7
I ATMES A Le to son du g a d p plo Prog m	ıéd .	34
Pa 919 3 XXX 425 428 2 Baracz Quoted by Aimes		35
3 4 5		36 Onerst Zentralbl tt f Ch 882 p 441
6		3 ⁸ I
7 8		39 PAR Arch f kln Chi 1902 l vi N 1 40 PERESE R U c de to son ep pl que P og méd Pan 909 3 xxx 4 PERESEN E Ube de t rsson des Netzes Be tr z
9		kli Chi Tuebing n 1906 xlvni 18-14
r		42 Price J Acute tors on of the great om ntum 2 case ports Ohio M J 92 XXII 675 43 REIDEL Muench n m d Wehnschr 905 li
11 (44 REVER E DE and BOERT Qu ted by Fuller
p luci g symptom s m lating appe d	t s	K tucky M J 022 276 46 Rupore U b r di torsi n des G osse Netz W e khn R dscha 1903 xvii 794-96
13		47 Idem Demonstrat on Zu er F lie v n Netztors on
•		48 SE
S N. U INI VAIMEN		49 \$
7 FLEER W Int bd m I rotat on of the om t m u a c mpa 1 d with hern S Gyn & Obst 908 m 31 43 S CILLETTE W I To 1 nofth g est ment m	DZ .	5 Swith Groupe M Infl mination in the act of cer 1 nigu al hernise An S g 924 ltrix 254 63
	ἀο	5 SMYTHE F D R port of a cas of t rso of th
Med Dn 908 v 95 97	J	5
1		es Su ny I Th'D on softens nofther ast omen
3		53 Swry J Th D gn softors nof the g eat omen tum Bristol VI Chr J 10 9-0 xxxvii 02 2 4 54 Thevenard P To 0 ague d I p ploon Pari
4	9	Chi to ii 38 43 55 T EMOLIERES F T is on et airoph e du grand
5 11 - 5,7 5	m 1	p ploon B ll t mem Soc nat d Par 903
6 L B	11 t	56 VIGNARD E a d GIRANDEAU Torsi ni tra abd m le du g d ep ploo A ch pro de Ch t T 903 x 1 06-23
, Li Ser	т е	57 WALDY J A case f's pourate e om ntal cysts etc
8		58
30		59
3 Mcf Lam 1 F 4	_	Md 92 1 97
P th 3 M RE II to T		6 WOOLSEY G A case f ga gr e f th omentum d t t rs Med & S g Rep Peshyt man Hos ptal w York 1908 1 79 80

SULLRELIATION-A PROBABLE CASE

BY TORN M VINDEN MD FACS MEMPIR TENNESSEE

OODIE² defines superfetation as the I ages due to the fertilization of ova liberated at different evulation periods. This differentiates it from superfectindation which is the fertilization of two or more ova liber ated at the same ovulation period

Since the possibility of the occurrence of superfetation has been a matter of controversy since the days of Hippocrates and is yet claimed by some to be an impossible event and since we have found no reported case which we think fulfills all the reconferences of proof necessary to remove it from the realms of controversy in reporting this case we hesitate to do more than give the findings and leave to others the privilege of interpret ing them

In the literature of superfetation many cases are recorded in which the diagnosis is based upon a difference in the stage of devel opment of the two fetu es and in mo t of them either one of the fetuses is dead a ually the smaller one or nothing is said in reference to this point. Even when both are alive a difference in development does not prove the case and when one i dead this difference can be still more nu leading becau e it is probably true that postmortem degenerative changes are retarded by the concomitant conditions and the time of death can therefore be less

often completed only during the puerpenum It is true that the rapidity with which these changes occur varies widely in different individual and while it is therefore impossible to determine accurately the length of the pregnancy by an examination of the comus luteum a difference between the ages of two corpora can be determined when it exists !

In most cales the pregnancies are intra uterine the delivery spontaneous and the mother survives and it i manife the impos salde to determine the condition of the comora lutea with respect to a difference in their states of development or regression. When this can be done however it i the greatest factor in the determination of a difference in the ages of the futuses. We have been able to find only one case in which the claim of super fetation was based upon a demonstrable dif ference in the structure of the corpora lutes found at autopsy . This difference in struc ture was largely a difference in the amount of connective tissue present and such is the condition manifest in the two corpora lutea found in the case which is reported in the article

We therefore are of the opinion that to be beyond suspicion and clo ed to controversy a case should pre ent two living fetuses of different ages and two corpora lutes in dif ferent stages of development corresponding

he orn 1 t m n reasoname do u

In reviewing the negative side of the ques

degeneration and the ingrowth of connective tissue They are essentially the same in both but in the corpus luteum of menstruction they begin at once and are complete in a few weeks while in the corpus luteum of pregnancy they begin in the second or third month and are

Mood: Surg Gynec & Obs

the cervical canal prevents ingress of sperma

2 That the utenne ostia of the tubes be comes closed in pregnancy

Balth of Zischr f Geburtsh Gyn k larry Wald Arch L Gynack 900 to

Read bare gfhS braSurg lAssoci Dec mb



Fig. Ulrurem dp lm 1 m Sh th 1 e f tu rem d f om the ut rund the 1 pc f 1 sill into it nih left 1 b

- 3 That during pregnancy the corpus luteum inhibits ovulation and thus prevents the fertilization of a second ovum
- 4 That it is impossible for the sperma

to the second conception

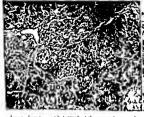
In the light of our present knowledge the first three reasons may be summarily dis missed. The plug of mucus is not always pre ent the uterine end of the tubes have been found open in the third month of preg



If Shw rel 1 s dde l pmentofih 1 tra devtra ute n l tu es drawn t 1h me s l

nancy 1 and the corpus luteum does not al

The demonstration of an undoubted case of superfetation is the only way to prove positively that spermitozon can traverse the uter me cavity in the presence of pregnancy. It may be stated however that the uterine

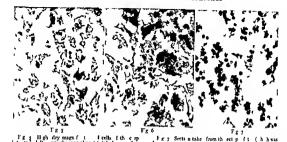


th lit are h gih led aged t tt Th lse h th mll m i fe ect t



Ig 4 Lo powerpht ph fib mp It m f the bt n bigth wipa glibecell al th g t m t f a ect is pesent Sam magnificat by:

nect et



It milft ary showing almost tallab c I on net et saue Fig 6 High dry magnifeat n I ells of the orpu I t m f ghto ry howing the presenc I much c

to ad a ced dig rat e ch ges

cavity is not filled by the conceptus until after a lapse of several weeks and that the vera and reflexa do not become fused as was once thought

Concerning a second decidual reaction this may be true if the second ovum is intra uterine but does it apply when the second ovum is ectopic? In ovarian and in both pin mary and secondary abdominal pregnances the placental development takes place in connection with structures far removed from the endometrium. Since the normal decidua is a connective tissue product one might ask if it is impossible for connective it sue elsewhere

to answer the purpose

This specimen Figure 1 was removed post
mortem from a colored woman 35 years of
age who died in the wards of the Vemphi
General Hospital from pulmonary tubercu
losis

Her history gave no suspic on of a tubal pregnancy There was no history of rupture o blood embry o seemed normal in every respect and was so much larger than the tubal one that a study was at once made to determine if po sibl the cause of the di crepancy

sideration as 13 4 weeks the measurm at

6 week embryos from a to 2¢ millimeters. The maximum and minimum for 7 weeks of gestation is o to 37 hence it seems as if the age of the smaller ambro fall somewhere bet cen the sixth and sev enth weeks

a by a millimeters. The central core was small and not so infiltrated the connective tissue cells or

scarcely he estimated but some insight may be gained by comparing the cellular di solution of the tubal offspring to the condition of the cells of the nterine fetus a high showed no signs of necrosis Microscop c examinations of sections of parts of the tubal embryo show that the cells are scattered and features are characteristic of young corpora lutes of pregnancy

Hence it is my conviction that the corous of the left overv is much less than 2 months old and has developed from the follicle that ruptured to con

either ovary by external inspection, but as soon as the ovary was cut open the vellow bodies were at once discernible. Only one cornus was found in

its color was a pale pink and its texture homo

geneous Thin slices about 13 millimeters thick

of retrogression

The cornus of the left ovary is younger and is still in the ascending phase of its growth

SUMMARY

In the care reported there were two fetuses one intra uterine one extra uterine showing a difference in development

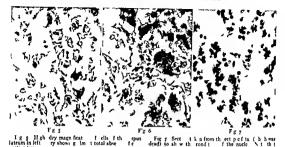
There were two corpora lutes, one in each ovary showing marked difference in develop ment the difference being in the arrangement of the cells and the amount of connective tissue present

lightly a d as compo ed entirely of connective ti de fbers and cell with a profuse infilt at on of

Though the ectopic fetus was dead and there were some signs of degeneration present these changes were not enough to give the impression that the fetus had been dead any length of time

Though not fulfilling all the requirements necessars for absolute proof still this case apparently proves superfetation beyond a rea sonable doubt

1 # 4 50 1 070 uteum a by necti e t s



ry shows a lm t total abse ecti e tiss Fg 6 ligh dry mg ficat n icil f the corp I teum of r ght ry show g th p esence of m ch

cavity is not filled by the conceptus until after a lanse of several weeks and that the yera and reflexa do not become fused as was once thought

Concerning a second decidual reaction this may be true if the second ovum is intra uterine but does it apply when the second ovum is ectopic? In ovarian and in both pri mary and secondary abdominal pregnancies the placental development takes place in connection with structures far removed from the endometrium. Since the normal decidua is a connective tissue product one niight ask if it is impossible for connective tissue elsewhere to answer the purpose

This specimen Ligure 1 was removed post mortem from a colored woman 35 years of are who died in the wards of the Memphis General Hospital from pulmonary tubercu losis

Her history gave no suspicion of a tubal p g nancy There was no history of rupture o blood

whi there a som nucl tsc tt ed around nast t die e at th majority ar it tand it n w ll, indi cat g th t d th had n t be so remote a to g: nse dd generati ch g s emb 30 seem d normal in every re pect and was so much larger than the tubal one that a atudy was

f the nucle

at once made to determine if possible the cause of the discrepancy The larger of the two offspring was carefully ex ammed and measured in its natural posit on with n

wer made upon the p eser ed specimen and prob a little lo as the specimen my hav sh unk in the i per cent formal any rror in the est mation f the age t ould be



This gall blidder shall (left) stil n ido Te a Sm pati t e i fi aba mmeat Sl nΓ den m to gall bi dd th Figu

as irritating to the tissues as a solution more concentrated should any of it escape from the vein

EFFECT OF THE SALT UPON PATIENTS The action of the compound upon patients

MANAGEMENT OF THE PATIENT

The orders for the patient are similar to those given by Graham and his collaborators The injection 1 made in the morning and for the reason that active digestion would interfere with the test no food should be taken during the first a hours though water ad libidum is allowed After the injection the patient should remain in bed preferably upon his right ide though this is not essential and he may sit up or be out of bed if he desires Roentgenograms are made at the 6 o 12 24 and 16 hour intervals. One half hour before the first 10 the 6 hour film a soap suds enema with a cubic centimeters of turpentine is given to relieve gaseous distention of the colon and a rectal tube a suserted for 5 minutes prior to each exposure thereafter After the o hour film cocos and toast are given to see if food will cruse a brinking in the size. of the biliary hadow for reasons to be dis-cus ed later. The patient may have hi regular diet the next day

ate. In 40 cases we have had no serious reactions with sodium tetraiodophenolphthalein Three of the patients complained of headache and one of these had pain in the back. Two

mild cyanosis occurred in a case but a cubic centimeter of 1 1 000 adrenalin given intra muscularly overcame these symptoms at once No other case had significant changes in pulse respiration or blood pressure following administration The drug has been given patients with my ocarditis and slight decompensation without reaction. Electrocardio grams taken in one case showed no change in any of the leads during or following the giving of sodium tetraiodophenolohthalein

This i a much lower percentage of re actions than that observed by Carman and Counsellor (2) in the report of a series of patients injected with the bromine salt

The urme collected for 24 hours following injection in no case showed albumin surar red blood cell or casts 1 24 hour sample of

THE CLINICAL USE OF SODIUM 1TTRAIODOPHENOLPHTHALEIN IN CHOLFCYSTOCRAPHY:

BY GIBBS MILLIKEN MID. A D LESTIR R WHITTIKER MID. BC 7. M. S. C. USETTS

THE intracenous injection of opaque media for roentgenographic usualization of the gall bludder was first report edity of raham and Cole (4). The method is an adaptation of the phenotterachlophthalein liver function test introduced in 1909 by Abel Powntree and others (7).

Craham and Cole first employed tetra iodophenolphthalein but believed it to be too toxic for clinical use. Calcium tetrabrom phenolphthalein was then tried but found to be too insoluble for convenience and they have since come to recommend the use of sodium tetrabromphenolphthalein (s. 6). In a recent article Criham (,) and his collabora tors express the opinion that their first un favorable results with tetraiodophenolrhtha lein may have been due to an impure product and mention the possibility that sodium tetra iodophenolphthalein will eventually prove to be a superior medium. They give several reasons however why they do not consider this probable and still hold that sodium tetrabromphenolphthalein has definite advan tages over the analogous sodine compound as a medium for cholecy storriphy

In experimental animals we have found (9) that practically twice as much of the bromine as of the jodine salt is required to produce a shadow of the same density and that the toxicity of the two compound is approximate ly the same A comparative test in a human subject evoked a reaction with the bromine but none with the iodine salt. For these reasons we felt justified in the clinical use of sodium tetraiodophenolphthalein and have to date employed this medium for cholecystog raphy in 40 patient The fact that we have not observed the ame degree of toxicity with the iodine compound that Graham and Cole did may as they uggest be accounted for by some impurity in their salt. The product we have used in our experiments has been sup plied by the Eastman Kodak Company of Rochester New York

METHOD OF ADMINISTRATION

It has be n found that o oas gram per klogram of body weight of sodium tetra colophenophith then will east a distinct shad ow of the gall bladder in the normal human subject and thi dose has been u ed in this serie of case. We are now finding that o oas gram per klogram of body weight gives not trely satisfactory shadow and that with the few patients in which this amount has been used the rescuon to the drug has been

negligible

The quantity of the salt to be injected is weighed out placed in a clean too cubic centimeter flash, and freshly distilled water; radied to make a to per cent solution. To this is added i 5 to 20 cubic centimeters of a to per cent solution of sodium cerbonate which in necessary in order to keep the salt in solution. The solution is altered autoclaved at 15 pound pressure for 30 minutes and kept well caled in a darly place. No solution has been used later than 4 hours after preparation.

The needle is then introduced and about 5 cubic centimeters are injected in order to be sure the needle is in the vein. Then the whole of the warmed solution of sodium tetral dophenolphthalien; poured into the gravity flash, and allowed to enter the vein slowly

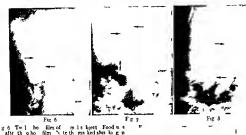
t one h the

flask

I nearly empty 25 cubic centimeters of
warmed saline solution are added and this
I repeated until the tinal color of the entering

repeated until the final color of the entering fluid: a very pale blue. The total amount of

Fm h S | IC| | f h P B B h m Hzs. I Boo | I search se P lam narry export d heft h II vaid Mid 1 Soc A selection



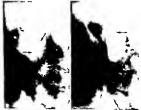
see (hiw Is 7 Tw tyf h film of orm I subj t Shad wh becom mill radi den

olo_bist at this hospital believes that two separate examinations will give better results than the combined form

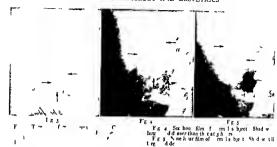
INTERPRETATION OF SHADOWS

The normal gall bladder begins to cast a shadow at the end of 3 hours after the injection of sodium tetraiodophenolphthalein (Fig 3) which reaches its maximum intensity during the 6 to 12 hour interval (Figs 4 5 6) and begins to fade in 24 hours (Fig. 7) disappear ing entirely in 32 to 36 hours. This chain of events has occurred in 8 normal individual who have voluntarily submitted to the test The normal shadow is oval in shape and smooth in outline It i at first small (Fig 3) swells to a maximum at 6 to 9 hours (Figs 4 5) and then gradually dimini hes in extent After food a quick reduction in the size of the shadow has been noted which probably indicates a sudden contraction of the gall bladder and sutpouring of bile for digestion (Fig 6) We interpret this contraction after feeding as diagnostic evidence of a normal gall bladder and consequently after the o hour film usually give food as a test of normal function

has occurred in g out of so cases that have been submitted to operation. Eight of these had indisputable block, of the cystic duct by a stone or an obliterative inflammatory reaction. One instance in which a shadow was obtained only in the z hour plate wis in z patient who had quite marked chronic



Fg (In) S



urine from each patient was alkalinized but no color changes were noted. A blue color should have resulted if unchanged sodium tetraiodophenolphthalein had been present in any amount. In normal dogs hower and in those with common bile duct obstruction positive tests for nodine in the urine have been obtuined by an owdation reaction (8)

SELECTION OF PATIENTS

There seems to be no absolute contraindication for the use of odium tetraiodo phenolphthalein unless it be in the case of a patient whose condition is so low as to make any similar procedure dangerous. Its use in intense jaundice is contra indicated for the reason that in experimental animals with chemical hepatic degeneration from chloroform (2) or with common bile duct obstruction (8) only ill defined gall bladder shadows are obtained and consequently the test would not be worth while Injection of the drug under these conditions however would probably not be attended by any great danger be cause it has been found that in dogs and cats the toxicity was increased only about 5 per cent after ligation of the common bile duct (8) Such a small dose as we have been ac customed to give patients should not be at tended with much danger even in complete biliary obstruction In short it may be said

that the test may be used without risk in any patient whose general condition would permat operative intervention

ROENTGENOGRAPHY

The patient is placed face down upon the table. The right arm is extended above the head and the left arm held parillel with the body head turned to the left. The Potter Buckey disphragm and a 30 milliampere radiator. Coolidge tube are used. The exposure is made in the cost overtebral angle at 20 mehrs tright film distance. The time vanes with the thickness of the patient's body, to 7 seconds being the extent of vanation A 5 meh spark gap with 30 milliamperes of current is used as a routine. As stated above films are taken at 6 9 1 4 and 36 hour after injection.

bladder shadows in subsequent plates. For this reason Dr. M. C. Sosman roentgen



i heson e 1 gpe up gibi dder ihelw m l

of the normal gall bladder shadow ordmanly produced by the salt. This was good evidence that the cystic duct was closed since in 8 out of 9 cases in which no shadows were obtained in occlusion of the cystic duct was present. The test in this case was interpreted to mean that the gall blidder was pathological and that the two shadows in question were concerned with it. At the time of operation a stone was found in the cystic duct (Fig. 13 a) of a contracted gall bladder filled with sand (Fig. 13 a).

e 1 id

Likewise the possibility of detecting patho logical conditions outside the gall bladder

shadows at differnt periods however indicrited contractile and expansile power comparable to that of a normal gall bladder. Such a distortion of the shadow due probably to some extraneous conditions such as a peritoneal brind is obviously an important factor which must be considered in the interpretation of gall bladder shadows.

There are several other findings the exact significance of which 1 still problematic. In some cases very faint shadows were noted only in the late plates. In the absence of any

demonstrable disorder of the liver this would seem to indicate cholecystius though rapid emptying of the organ is also possible as the cause. The persistence of a shadow beyond 36 hours in all probability indicates stasis.

In the appended table we have listed the cases in which the actual condition of the gall bladder has been proved by exploratory, laparotomy. All of the 20 cases had very definite histories that led to the climical impression of chronic cholecystitis with or with out stone. The interpretation of the chole cystograms was erroneous in only one case (5 per cent) while the climical impression was not correct in 35 per cent of the cases The 1 case in which diagnosis from chole cystography failed was that in Figure 11 in which pressure of a diluted duodenum dis

not make the same mistake again

Our diagnostic results with sodium tetra iodophenolphthaleni for cholecystography agree in general with those of Carman and Counsellor (2) who have employed the sodium salt of tetrabromphenolphthaleni for this purpose.

We believe that such a remarkable ad vantage of cholecystography over clinical

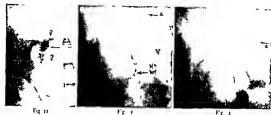


Fig 11

If it Sixhur film hog nonleddwhich
p diepres taga fillidod no (105) daitt grall bid it hiw by pece Compare with
I gure 3

cholecy stats although the cy tie duct was open and there were no stones present. This last case seems to exemplify the point brought out by Graham and his collaborators (5) that the concentrating power of the gall bladder must be active to permit insulation of the orgin. Hence in high grade cholecy statis even though the cystic duct be open and the lumen of the gall bladder patent if the concentrating function were absent no shadow should be obtained. Judging from the fore should be obtained.

to repre ent multiple stones in a small gall bladder markedly thickened by chronic in flammation. These calcult were not seen in the plun films and we believe some of the salt was deposited upon them.

anations from the normal in the shapes

good evidence of a pathological condition in the biliary system

The presence of gall stone in patients was within the

h persi ted
5 (Fig 8
verified at
operation In one of the c cases a ingle large

r occupied

suggest and 10) Runs shaped shadows were seen only in the

Ring shaped shadows were seen only in the 24 hour film of 1 ca e which did not show a distinct gall bladder shadow. These proved normal superior mesenteric artery was dicovered in 1 case at the time of operation (Fig. 11). Gas in the colon al o may produce indentitions in the gall blidder shadow (Fi_os 1 5 and o).

In many cases cholecy tography may be

hadow were een in the right to tovertebral angle on the plain film (Figs 12 a and 1 b). The large

The large stone in
After the
donhenole

cent Thus this new principle of Graham and Cole provides a measure of great accuracy in the diagnosis of disorders of the biliary system

BIBLIOGR APHA

- I (a) ABEL a d ROWNTREE | Ph mac l & l xp
- Therap 1909 1 33
 (b) Unipple Peigertl 2 d Clark Johns
- Hopks II p B II 9 3 x v 343 2 CARMAN A d COLNSELLOR Am J Rontge I 19 4

X143

- 4 Granau E A a d Cole W If Roentg olog c vamm t n of th gall bl dder J Am M Ass 9 4 lxxx 613 5 Idem Vi al at on f the gall bladder by the sod um salt of tetrabromph nolphth le n J Am M Ass

- igi4 lixxii 777
 6 Idea Roentge ol gical sualization f the gall bladd by the intra nou i j cli n of t tra bromph olphthale n Ann Surg 924 lixxx
- 473

arison of sod um rad og

SURGERY GYNECOLOGY AND OBSTETRICS

TIRLE OF PROLINGACCO

_	- American			TABLE OF PROVED CASES	
	PEBII Surg al N mile	had bef re f yect	5h d w t	Dang on I	Pos pera D gnos
	655	0			,
	365	0			
_ 3	5	0			
4		0			
5	5	0			
6		0	100000	N hal -block fy sed	Severe chr h leeys tas the vs d
7		0	00000	and w-block few and es	Sever chro h locys why d
8	31	٥	00+00	Pl dd torted h dw Chro bo-	Fo med d pra ted g li bl dder
		-	1++++		Dod jul ~g Chidd m t
_	63	0		-	Biark 4 hro h legget pergrad closed
	73	6		e	M I pl g II to to in th rem us f g II blad drauned y ar nefor
	76	+	++++	8 i plain pl V h as had the pr	Block few of thy Is passated by
_ 1	8 3	0	00000	had -block feys duct	MID to se-sto same yeard
_ 4	81	0	++++0	5 to b ti g- rem !	Normal- eval ppe d
-1-6	EgS.	0	++++0	Smon h be-n rm t	Normal gall bl dder pelvi inflammatio
- 6	775	٥	++++0	S no b lune-oran L	G Il bladd orm I P col ta
,	5,7	0	00000	Block f yet d t	Co l'inty is-no y la d'mali
5	9.5	۰	00000	Closure I y tie flue	Af hed he as is lesy to with to es-eve
. 0	1	0	++++0	S no h 1 e nem 1	Gliblidde mal Plat fanem to
	7	0	++++0	5 mh d - ml	C il bladder per 1 D od na)

methods of diagno is together with its very shift inconvenience to the great majority of

SUMMARY

phthaican

The conditions indicating pathological gall bladders have been (1) failure to produce a shadon due to cystic duct obstruction or severe chronic cholerystitis (2) gall stones film but show

paper (9) demonstrates its superiority over sodium tetrabromphenolphthalem

We have had only four teactions severe enough to cause headacht or vomiting in our series of 40 cases

In this paper comment is made upon the use of fluoroscopy and of a combined examina

tortion of the shadow due to causes in or about the gall bladder

The diagnosis of pathological conditions of the gall bladder by means of cholecysto, raphy has been found to be correct in of per cent of the series of proved cases while the cumcal impres ion was correct in only 65 per

cent. Thus, this new principle of Graham and Cole provides a measure of great accuracy in the diagnosis of disorders of the biliary system

RIBLIOGRAPHA

1 () ABEL d ROWNTBEE J Ph mac l & Fape Therap 1900 1 33 (b) Wipple Priorital and Clabk J has H pki s H p Bull 19 3 x 343 2 CARMAN & GOUVSELDON Am J Roe 1g ol 1924

9 4 Itxxii 1777
6 Idem Reenteen logical as unlegate n of the call bladder by the 1 tr en us inject on of t tra bromohenolohthal n A S rg 19 4 lxxx 473

2 14

Med cal School

4 GRAHAM E 1. a d COLE W H Roentgenology

1924 IXXII, 6 3

Id m Vis lization f the gall bladder by the sodium

It f tet br mph nolphthale n J Am M Ass

rison f sad um rad og

GASTRIC TETANY A FATAL CASE

BY IRVING BUSCH BS MD NEW YORK

ASTRIC tetany is a comparatively un common condition. The importance of early diagnost from blood findings before the clinical symptoms are mainfest cannot be oversitiesed. The indication for operative relief must be made early in order to give the patient a fair chance. The first report of gastric tetany was made by Neu mann in 1861 but it remained for kussmoul to present a complete and accurate description of the condition and place it on a firm chinical basis.

DEFINITION

Gastric tetany is a condition manifested by persistent vomiting tonic cramps usually bilateral starting in the fingers and toes and progressing centrally with a pylonic obstruction as its underlying pathological cause

Von Frankl Hochwart has conveniently classified tetany into six groups (1) dio pathic (2) gastric and intestinal (3) acute infectious (cholera typhoid scriet or rheu matic fever malaria sore throat influenza) (4) intovications and poisson (regoun alcohol chloroform uremia) (5) pregnancy

and (6) pratshy roidectomy.

The gastre type is of particular interest for the underlying cause of the obstruction is usually beingin in character and amenable to surgical intervention. The importance of operative intervention in the relief of the obstruction will be seen by the considerable decrease in the mortality since this form of treatment has been instituted.

OCCURRENCE

Boas quotes Gumprecht who had collected 40 cases This represented a complete review of the literature to 1897. To this group he idds 12 cases. Hirschberg states that but 30 series of 101 cases reported up to 1917. Edwards series of 101 cases represents the largest collection. Since 1908 there have been but 15 cases reported in the literature.

PATHOLOGY

The pathological conditions causing gastric obstruction in these cases are many but the larger number are due to a cicatricial obstruc

1.

at the pylorus causing obstruction and subsecured gastric obstruction with teatine manifestations are torsion of the stomach (Mueller) compression of the duodenum by a pan creatic cyst (Berlitcheimer) compression of the duodenum by a gail bladder filled with stones (Blaziek) and foreign bodies in the stomach (Warbasse). Four cases of spasm of the stomach (Warbasse) Four cases of spasm of the stomach have been reported as giving, rise to tetany without any apparent organic lesson. Rodman reports a case of gastric tetuny, corning on rr days after a gastroenterostomy.

PATHOGENESIS

An attempt to explain the appearance of tetany in cases of gastric obstruction has stimulated a large amount of experimental work but up to the present we are uncertain as to the exact causative factor Lussmaul attributed the convoluent to the los of large quantities of fluid with resultant des accation of the ta ues While there is con siderable loss of fluid in many cases this cannot be supported in view of the expen mental production of tetany with the main tenance of the fluid balance by introducing fluid into the duodenum below the site of obstruction After this procedure tetany still develops Mueller and Riegel sponsored a reflex irritation theory as a cause of the spasm but the r purely theoretical and has no experimental support

Bouchard maintained that the spasms were due to an absorption of touc products from the obstructed stomach A number of in vestigators have isolated substances from cases of gastric tetany and by means of animal experimentation sought to prove the cause of the spasms Bouveret and Devie solated peptotorins and Kulneff diamins from the stomachs of cases with gastric tetany. These investigators were able to produce convisions in some animals with these isolated torins and sometimes death followed Alka loidal bodies have been recovered from the unne during an attack of tetany. On injection into animals these urinary alkaloids have produced from compulsions.

Other attempts were not so successful For example Fleiner and Gottlieb utilizing the prototoxins of Bouveret and Devie produced

from the stomach and unne were unsuccessful Morcover Cassaet and Ferre were able to produce convulsions in animals with substances isolated from the normal stomach

MacCallum and Murray have shown that after experimental occlusion at the pylorustetany may be initiated by frequent stomach is vage. This would not appear to support the view that tetany was induced by torus absorption but rather a loss of substance which disturbs the body equilibrium in such a man.

physicochemical properties of the blood. These blood changes affect the pempheral nervous system particularly causing a progressive increase in its irritibility. He has observed a new in the cutbon dioride combining capacity of the plasma a fall in the chloride content of the whole blood and plasma increased sulphur and phosphorus concentration a slight in e in the hydrogen ion concentration and an increased blood urea.

The persistent loss of hydrochloric acid from the body by vomiting means a loss of the H and Cl ions from the blood. The loss of

H+ ions releases -HCO, ions and the loss of -Clions releases Na+ions The combination of these freed ions gives NaHCO, which results in an inercased total carbon dioxide of the plasma. The increased carbon dioxide

desire obstitution this increased carbon dioxide content is present before the onset of any signs of tetany and gives an indication for early operative interference.

SYMPTOMATOLOGY

All the symptoms and signs of the motor insufficiency of the stomach whatever be its underlying pathological cause as mentioned above are present with the additional man iterations of tetans.

The onset of the tetanic spasms usually sudden may be initiated by any muscular activity such as vomiting stomach wash or eventy and in the patient. Beginning as a rule in the upper extremity and affecting the flevor muscles there is flevion of the fingers at the metacarpophalangeal joints and the thumb is markedly adducted. The wrist is flexted and the whole picture is that of the obstitric hand described by Trousseau The elbow may be flexed and the army pressed to the side of the body. The extensor muscles are occasionally involved with the result that varied and unique attitudes of the upper extremites occur.

The lower extremities present plantar fler on of the toes the big toe being abducted beneath the others with a hollowing out of the foot giving an appearance somewhat similar to that of the hand. The heel is raised giving a pes equinus. Only exceptionally are the muscles of the thigh and hip involved.

These spasms may last from a few minutes to a few hours

Trouseau has designated three types of cases depending on the di tribution of the muscles involved. A mild form in which only the muscles of the extremities are affected a moderate form in which the trunk abdominal and ficial muscles are involved, and a third severe type affecting the muscles of the lary nx phary nx and tongue.

DIAGNOSIS

phenomena which aid materially in establish

ing a positive diagnosis I Erbs plenomenon There is a decided increased irritability of the motor perces to the galvanic current while the faradic reaction is sometimes increased. This increased irntability is perhaps the most diagnostic

objective sign of tetany Trousseau s sien Pressure upon the main nerves or blood vessels linings on a te tanic spasm. The test is most easily elicited in the upper extremity by pressure above the elbon sufficient to obstruct the radial nuise In r or 2 minutes typical tetanic contractions appear and the hand may assume the char acteristic position of carpopedal spasm

t Chyostok's sign is an increased irrita bility of the peripheral nerves to mechanical irritation particularly the facial nerve If the facral nerve or any of its branches be per cussed at about the middle of the check short rapid twitches of the muscles supplied by the stimulated nerve branch appear

a Schlesinger's leg phenomenon With marked flexion of the hin toint and extended knee there occurs after 2 minutes an exten sor cramp of the knee joint if the foot is for cibly supinated

Positive reactions to the foregoing tests assist in establishing a diagnosis of tetany The presence of any one of them in a case of paloric obstruction makes a drignosis of gastric tetany certain

PROGNOSIS AND TREATMENT

The medical treatment of gastric tetany is very unsuccessful with a mortality ranging from 70 to 90 per cent. Since the advent of surgery for its relief the mortality has been reduced to about 37 per cent

Tetany can be prevented by the early operative relief of the pyloni obstruction The carbon dioxide capacity of the blood should be determined and if it exceeds 80 per cent by volume immediate operation is imperative provided there has been no history of extensive alkalı therap; A gastro

cent one can predict tetany. In his cases the carbon diovide content of the blood plasma was over 100 per cent by volume before the

enterostomy will relieve the obstruction and

onset of tetany If tetany has developed gastro-enterostomy is the procedure of choice and this should be

done early On the basis that the tetanic condition in these cases is brought about by the loss of hydrochloric acid the rationale would be to in troduce acid to combat the condition. Mur ray infused a combination of 500 cubic centimeters of N/10 hydrochloric acid solution with a similar amount of N/o 15 salt solution without harmful effects. Calcium chloride has also been administered in these cases without striking result

Until further work has been done to estab lish the exact cause of tetany in cases of gastne obstruction operation for the rebei of the obstruction offers the best bone for re

covery The following case is taken from the records of Beth Israel Hospital to illustrate the symptomatology and a latal outcome be cause the operation was deferred

R B femal 60 has had a history of epigastri d scomfort for the past 3 years with occasion ! attacks of severe pa n in the upper abdomen accom panied by vom ting During one of these attacks which occurred 3 neeks ago she was removed t a city istitution. Here a roenigen examination disclosed a chrom gall bladder condition and ope anive interf rence was advised. The acute symptoms h ving abated the pats at refused operation and left the hospital After leaving the hospital th e was no recurrence of pan but the v ming per ıst İ

h i m

f mile physician who called D. J. Bar ky in or sultation to de de whether oper tion should be an fertake t h story of a t mittent painful con

Exam nation sh as an adult was el a So in ex em s Fac and fing halls a e evanosed Extremities are in almost constant carponedal snow Chrostek's sign elicited Tongue is dry and coated Chest is emphysematous in type Breath sounds are diminished and few moist rales

e If tetany ensues gastro enterostomy is the treatment of choice

I so h to exp ess my sincerest the ks to D. I B rsky what a sakindly granted me perm on to report the case

DEFERENCES

Brane R. Durel. Lulce a ditetant. I Am M. A. 9 7 Wav Boss I D g tik und Therap e d r Mage krankhe te Lep 18 919 Brown a d Excelle CH S g Gyncc & Obst 19 8 In cs8

negative. A stomach wash was given and one quart of dark brown turbid fluid removed on insertion of stomach tube. The carpopedal spasms continued unabated, the nations duing to hours after admission to the ho pital

The autopsy was incomplete The liver was torn and macerated on removing. The gall bladder was not removed. The liver presented no pathological changes. The stomach was dilated to twice its normal size. No evidence of ulcer or new growth was present. Intestines and duodenum normal Lentoneum normal Kidneys normal The nathological condition was evidently associated with the gall bladder which was unfortunately not removed

Anatomical d agnosis dilatation of the stomach

CONCLUSIONS

- Gastric tetany is an infrequent condition and is fatal if not treated early and properly 2 It is preceded by an obstruction at the
- nylorus usually of a benign character e.g. ploer An increased carbon dioxide combining
- capacity of the blood plasma ranging from 80-100 per cent preceded the onset of the tetanic spasms
- 4 The obstruction should be relieved by a gastro enterostomy before the manifestations of tetany appear thus preventing an extremely dangerous complication

sum ch Mont i M d J 910 xx 1x 7
Gordon Fat I case f ga tric t ta y Lancet Lo d at HERSCH ERG I 7 Kas tik on T t nie bei Pul ein

tenos Be i kli Wchnschr gro i 634 LARKE C se ig tr teta v Proc v w vol. P th Soc 10 McCallum W G and Liviz Fill et I pyl n ob true

to rel tion t gastric t t ny Bull I hn II pk s II p 9 0 XX31
Mills W C se igast tet v eco ry Brit M J

MERRAY II Pyl ric occlus Arch S rg 021 RODNAN W L C tr tet > J \m \i 1 lan soo

WARRASSE JPF g bol 1 tm h \ n \ g Wex mg Uebere Fil nSp tttn g t sch Uesprugs W kl Whisch 94

HA WATOGENOUS OSTEOMYFLITIS

REPORT OF A GROUP OF SELENTI ONE CISES

By WILLIAM T DORAN VID FACS AND LESLIE BROWN M.D. NEW YORK

I mth Chide g	l creix B flevu Hospital		
T	TABLE I -AGES IN	71 CASES	
•	ACUTE CASES		
•		Ent. 3	P
	Male	3	2 1
	I male	51	8
	T tal	42	
	Ages (y ry	Acu ases	Fer cen
1215 years old when admitted	Under 1 Year	1	56
The majority of the patients came to the	to:		3)
hospital with a hi tory of having been ill for	to 3	,	5 3
from 3 days to 3 weeks and therefore did not	3	3	7 68
mond 3 days to 3 weeks that therefore that hot	\$ 10 6		3 6
present lesions of the earliest stage of the dis	61 7	5	28
~- ~ lmn~ ~ 11h ~	7 to 8	3	0 24
	8 to p	i	3 80
	9 60 1	ò	\$ 00
cases was that of an extremely sick child	111 1	4	74
cases was made of an extremely sice child	11.1 3	7	7 92
profoundly septic with a temperature vary	CF 20 10 C451-3		
ing from 103 to 105 degrees or even higher	C1 20 10 C4513	Lase	Tur stat
The extremity was red and ordematous over	M le	4	45
the upper or lower half of the bone involved	F mal	ś	51
and often over its entire length Tenderness		~	
be a 1 -4	Ttl	59	
	Age y re	Chro caves	Pt
	Udriya	2	7
	t	9	0
point but often extended up and down the	21.3		7
bone for several inches Fluctuation in the	31 4 41 5	4	•
soft tissues was not uncommon	\$1.6	3	36
	6 to 7	ò	
The diagnosis in most cases was perfectly	7 to 9	,	7
obvious The problem which confronted us	81 9	3	7
was thus How much or how little operative	9 t	•	7
surgery was necessary in these cases to save	i to	5	,
life and effect a cure?	• •	,	
and and effect a case.			

There were 21 cases in all 44 boys and 27 girls a ratio of 3 to 2. Only 3 cases occurred during the first year of life and but 20 chil dren were under 5 years of age and 10 between 10 and the age limit of 12% years. This shows in increase as adolescence approaches.

For the purpose of this paper the eness has been divided into 2 group—tiest the acute c.ses 42 in number and second the subacute or chronic cases 29 in number who had received some form of surgical treatment prior to their admission to the hospital. Their

furnicates to that of the silican often appeared to be the primary source of infection. One ca e appeared to be secondary to the contraction of th

infection. One ca e appeared to be secondary to aunte appendicit. with abserse A history of some form of local trauma was very com mon and occisionally the di-case seemed to be a conlary to exposure to cold and wet The organisms found in the specimens of pus examined were in the order of their fre quency staphylococcus aureus streptococcus hemolyticus and staphylococcus albus the staphylococcus aureus being present in 86 per cent of the cases

TABLE II -ORGANISM FOUND

PUS	
Staphylococcus e s Str pt e ceus fixmolytic s Staphylococcu alb Neg ti	18 3 1 4 26
Brood	
Staphyloc ccu u Str ptococcu hæm lyt c	5 1 13
Total	9

The bone most frequently affected was the tibia which was involved in 30 cases. The infection began in the lower end of the diaphysis of the tibia in 18 cases. This was the most

involved primarily in 7 cases the infection beginning in the upper end of the diaphysis. The lower end of the diaphysis was never in volved primarily. In 11 cases several bones were infected either pinnarily or as subsequent le ions. In our experience primary infection of the humerus was the most serious condition for of the 7 cases reported 3 patients died and 3 had other bones infected subsequently, while 1 developed a pyoper carditus. The 3 fatal cases showed positive blood cultures in 2 of which the staphylococ

the acute cases the duration of illness before operation must be brine in mind. The imports of these cases were not diagno ed as acute osteomychit until a considerable period of time varying from 3 days to 3 weeks had elap ed after the enset of the symptoms and it was not until the infection had grund very

TABLE III --- PART INVOLVED PRIMARILY

	d phys	disphys	duaphy
Tıb	11	18	٥
Fmu	3	14	۰
H merus	7	٥	
Fib la	3	1	c
Rdis	0	1	c
Ulna	3	3	c

TABLE IV THE	BONE	AFFE	CTED	
	Acut	Pt	Ch onsc	Per
Right tibi	11	27	5	17 2
Left tibia	11	27	3	1 5
Right fibula		2 5		۰.
Left fibula		7.5	۰	0
Rght f mur	3 4 6	10	3	10 5
Left femur	6	15	5	6 8
Right os calcis		5	2	6 8
Left cal s		2.5	5 2 1	3 4
Right ischi m	1	2 5	1	3 4 6 8
Left isch um		۰		6.8
Right Is m	0	۰		3 4
Left il um	۰	7 5		3 4 3 4 3 4 3 4 5 8
Right Ina	1	7 5	2	8 6
Left ul	-	5		۰
R ght rad us			1	3 4
Left rad u		0	٥	
Right cland	0	۰	0	0
Left cla sele		0 7 5 5	1	3 4
Right hum ru	3	7 5	3	10 5
Leit h merus	3	5	ò	•
R ht sc pula	0		1	5 4
Lelt scap 1		۰	•	-
Right m ad bl		۰		3 4
Left ma d ble		۰		
Metat real (o dary)	1	5	1	
M It pl b es	5	2 5	5	17 2

considerable headway that they were referred to the hospital for surgical intervention. We never had a case in the early stage when simple methods such as incision of the peri osteum seemed adequate.

Usually the skin over the infected area was tense adematous and glazed resembling a celluluis and frequently when the soft tissues were incised pus was immediately encountered. Periosteum was found ruptured and elevated for several inches or over the entire length of the diaphy sis. The bone cortex was often necrotic for a variable length. The condition was that of an extensive infection of the bone and soft inserse.

In 26 cases part of the bone cortex was removed. By this is meant that after the pen osteum had been reflected one to everal menes of the bone was chiseled away exposing the medullary cavity. The extent of the removal was determined by the amount of

HÆMATOGENOUS OSTEOMYELITIS

REPORT OF A GROUP OF SEVENTI OVE CASES BY WILLIAM T DORAN AND FACS AND LESLIE BROWN MD NEW YORK F with Cold 5 g | Service B II wa H o ral

HIS report is based upon an analysis of

TABLE I --- AGES IN 71 CASES ACD'TE CASES

Cases Per : 37 10 71 5 F mal Surgical Service of Bellevue Hospital during the past 4 years Because of the age limit of this service none of these patients was over 1214 years old when admitted The majority of the patients came to the hospital with a history of having been ill for

from a days to a weeks and therefore did not present le ions of the earliest stage of the dis ease when simple surgical drainage would have

profoundly septic with a temperature vari ing from 101 to 105 degrees or even higher The extremets was red and redematous over the upper or lower half of the bene involved and often over its entire length Tenderness which as a rule denotes subpenosteal inflam mation over the infected bone could always

soft tissues was not uncommon

The diagnosis in most cases was perfectly obvious The problem which confronted us sas this. How much or how little operative urgery was nece ary in these cases to save life and effect a cure?

There were 71 cases in all 44 boys and 27 carls a ratio of 3 to 2 Only 3 cases occurred during the first year of life and but 20 chil dren were under gyears of age and 10 between 10 and the age limit of 12 1/2 years This hows an increase as adolescence approaches

For the purpose of this paper the senes has been divided into 2 groups -first the acute cases 42 in number and second the subacute or chronic cases o in number who had received some form of surgreal treatment prior to their admission to the ho pital Their

T tal	4	
Acestery no	Acu tes	Per cen
Ud sa		2 56 5 1 7 68 5 1
stes		
1 to 3		3.1
3 10 4	•	1 4
4 10 5	3	200
3 06	ī	5 ± 50 1 80
61 2	:	1 80
61 7 71 8	3	1 24
6 to 9	7	12 80
910	7	15 00
19 10	1 5 4 5 0 4 7	13 4
1 to 2	7	17 92
• • •	,	-, 4.
CE NO TO CASES		
CI NO IC CASES	Circ	Per ent
W I	14	45
F male	**	5
. 41411	~	,
T tal	20	
Ass y n	Chr cage	P
Lod a	Cita const	7
10 3	۵	,
10 3	_	*
3 10 4		7
41 5	3 0	;
ši č	i	•
6 to 7	ă	
7 to 8	,	3
8t 9	-	7
gti		11
i i	- 7	37
; ;,	4 5 3	

acute symptoms had subsided and they pre L m m n m which led to dead

ıt furunculosis ton illiti or otitis ill u a often appeared to be the primary source of infection. One case appeared to be secondary to acute appendicitis with abscess A history of some form of local trauma was very com mon and occasionally the di ease seemed to be secondary to exposure to cold and wet

TABLE V -TREATMENT

	Ac t	Chr
B e co tex emo d	6	0
B ne drill d	4 8	0
Bone cu ett d	8	16
B ere cted (subperio t ally)	4	1
Sq estrum mo d	à	6
Incise I and dr n d	0	6
Alleine I Prin di - d	_	
Total	42	29
Sequest	4 p cent	
Irni n	7 5 p cent (3 ca)
Amp tat ns	3 (acut)	

Ag		
years	L ft t bi	
5	Left f mur	Ben cortex r mo ed
6/	Left til i	Dalli Rectremod
re (chrone)	Left fem Roht t bia	Re ect d

cases the sinuses were enlarged and only the bone sequestra were removed. In 6 other cases the soft tissues were incased and ample drainage instituted. Sequestra were removed in 40 per cent of the total cases either at operation or by ubsequent extrusion through the sinuses.

P L - -

other 3 give symptoms of septicamia but died in 3 hours after admission before blood cultures were obtained

Two developed a pyopencarditis which was opened and drained. Another had foci of infection in the tibia fibula and ulna to ether with a chronic endocarditis.

One death occurred in the chrome series of cross. This child was in such an emacated condition upon entrance to the hospital that all supportive treatment failed. The entire shaft of the femuly was involved and the child's condition did not warrant a high amputation.

fixenty eight of the acute cases are healed. The average duration of the complete recovery was 11.4 months. The average case was followed about 2 years.

No ca e was considered healed until the epithelium had completely regenerated and remained intact for a number of months and the radiograph howed a bone free of seques tra and rapidly approaching normal

TABLE VI -- DURATION AND PROGNOSIS

			ACD	TE CA	SES		,	for 1 -
hur 1	lus.				F	1 1 d 1 C 5%s	bealed C ses	fow I g f li wed Yea
3						4		
9						6	1	1
,						4		6
8						Y.		3
4						6	1	8
7						0	1	14
ŝ						0	2	1
,	Ded				8	1	pre	nt
		1 erag	đ rat	13	1	4 m 1	iths	
			CHRO	ONIC 1	CASES			

			CHROY	TIC CASES			
3 6					4	3	4
9					7		6
ŧŠ.					3	1	8
36					3	1	6
48	D q	A	e durato		5 5 tm	6 per c	ent

ACUTE INHEALED CASES

Dw	t		ſĥи	
M		Bla	Y t	T tm t
0	- 1	Righttba	8	D lled a d cu ette i
?		Left til	8	Guttrd
38		Left f m r		Gutter d-leg ampu
•		t bia bum ru	5	ttd
4		Left t b	g .	(etted
48		Both t b æ		
		R th bum	n	C tt d

CHRONIC UNKRALED CASES

Durat	B 1 d	f hd i	T tm t	
3 m th	Right humeru	2	I c d (d sappe	ed)
6 month	B th f mora	3	I cased (1 es)	
om ti	Righto cal	Š	Cur tt d	
y t	Left f mur	4	C tted	
/ years	Right m nd bl		Sequestrum r m	d
У	Left t b a	3	Crttd	
years	Left fem	3	Sequestrum m	ed

•	4	y rs	Rghttb	8 R sect d subpenotall
			ACUTE F	AL C SES C lt
	3.0	n th	Righttb	N ne C ∩
	2) rs	Right hum rus	Blood ndp s-staph
	ı	ye rs	Left i mu	\"""
	í	54 E	Left h m rus	Blood nd pus-staph
	6	213	Leit ub fib la uin	Blood nd pus-st ept hæmolyt.
	9	ye rs	R ght tibia	Pus-staph aureus
	0) IS		Blood and p -staph i am lyt
) rs	Left f mur	Blood and pu -star h

) IS Right i mu

infection of the cortex and purulent condition of the medulia. Only sufficient hone was removed to provide for adequate drainage and Dakinization of the infected medullary cavity The medullary cavity was never vigorously curetted but any purulent material present was removed with gentle sponging servative treatment, such as incising and en larging the opening of the already runtured neriosteum was at first attempted in many of these cases without apparent relief and subsequently it was necessary to remove part of the cortex to establish proper drainage The meduliary cavity and soft tissues were thoroughly and continuously Dakimzed until all sign of infection had disappeared Eighteen of these cases showed purulent areas in the medulla and in 5 others the cortex was soft and necrotic for several inches

The removal of the cortex except by drill ing or curetting a small opening is not advocated in the early stage of osteomy elitis In cases in which the duration is a week or more and in which often almost the entire length of the medullary cavity with a cor responding area of the cortex is infected a mall opening of 1/2 to r inch does not afford sufficient drainage and as the bone later sequestrates no harm can be done by the removal of a potential sequestrum at opera We believe that the eather surgical drainage is instituted the less the destruction of the cortex and if dramage is established in the first 24 to 36 hours after the onset by split ting the periosteum and drilling the cortex with a small hole or two there is compar atively little destruction of bone and con valescence is shortened

In 4 cases the cortex was drilled with sereral medium such doles after the periodicum was incised. Sub-equently more cortex was removed to provide sufficient drainage in 1 and ampartation was necessary in another to save the patient's life. In colcases, a small amount of incrotic bone was removed with a curette. These cases were admitted a lew days after the onset of the disease or before much bone destruction had occurred. The convalencence averaged 4 months.

The lower third of the fibula was resected in 2 cases The bone regenerated in about 1 year The epiphysis was destroyed in r and ankylosis of the ankle finally resulted

Amputation was done in 3 cases. The in fection had occurred in the femir in 2 cases in which several inches of corter had been p eviously removed, and in the tibia in 1 case in which the corter had been previously dilled with several large holes. A guillotine imputation was performed in each case amputation was performed in each case and the stump Dakinized. All the patients improved immediately after operation and all recovered. One developed acute manua which cleared up in 24 hours after simputation and another had a positive blood culture with in fection of 2 other bones. No limb was sacrificed except to save the patients is filed.

Two cress showed partial destruction of the lower epub, as so the tibus. In each case the more rapidly growing fibula caused the foot to be inverted one moderately the other to such an extent that 2 inches of the shafe of the fibula was removed subpenesteally in the endeavor to check the deformity and afford opportunity for the epiphysis of the tibus to regenerate. At present the foot to considerably inverted but with a corrective shoe the nation; analis fairly well as for the content of the cont

Thereon cases (31 per cent of our sense of acute cases) were translused with whole blood by the Linderman method. The number of transfusions in the individual cases ranged from 1 to 12. All cases that do not how marked improvement after operation are

transfused repeatedly if necessary

In subacute or chronic cases the treatment necessarily differs from that outlined above Muny of the children had received surgual treatment el ewhere and the condition was often of months duration before the patient was admitted to Bellevue Hospital Trese children had discharging nue es tender en

necrotic bone removed. The entire shaft of r ulna and of r tibia was resected subpen



thut c pl t lucrum f m l n min Tie ti as tak ithetla sto th lat

fg 2

Fg 23 Sq strat on of the t ulna shaft tith ut c mplt in the furniformati Th tire sequest at d h ft was remo 1 w lafter the Xry x 1 k n fig 8 The conductified in the ulna 4 m nths late

years and subsequently required amoutation as previously stated The other shows little tendency to regenerate after 15 months and will probably require a bone graft to restore the tibia. The reas in which the entire diaphy is of the ulna was removed shows slight regeneration after 4 years. The \ ray findings illustrate the above statement



C mpl t sen estrat n f th Fg 1 haft f th Fig 36 Th conit fth bo 33 rs lat

Fg 36

Figure 14 shows the entire sequestrated tibial shaft in situ without complete invo lucrum formation Intire sequestrum was removed 3 days after this I ray was taken

Figure 16 shows the condition of the tibia is months later

Figure 2a shows sequestration of the entire ulna shaft without complete involucium for the entire sequestrated shalt was

removed a week after this \ ray was taken Figure 26 shows the condition of the ulna 4 years later



F # 4 C mplet seq estrat fth haft f nih FR45 The den fith humeru 45 ralate

Tibize from which several inches of cortex had been removed required the longest time The bone

nonths but

remain intact and abraded under the slight est provocation. These cases were not conidered bealed until the epithelium was firm and sound for several months.

The average time required for healing in the other bones in which the cortex had been removed was a months

The cases that required only curetting

healed on an average in a months

Of the 4 cases, in which the cortex was
drilled with several medium sized holes one
required 12 months and another 24 months
for complete recovery. In the third proper
drainage could only be established by further
removal of the cortex and in the fourth am

Twenty one of the subscute or chronic cases are healed. The average time from on

set until complete recovery was 15 5 months.
The condition of the 6 unhealed cases in the acute series is as follows.

putation of the limb was necessary

One could not be located after 9 months. This case has a moderately infected tibia. There was only a mall wound at that time and the condition probably bealed in about 3 months.

In the third case the entire shaft of the left femur the lower third of the left tibia

blood culture the original loculoit which has dealed but several other foot such as a suppurative elbow joint and a periositist of the opposite humerus hive developed subsequently. The prittent is apparently well at present but he is not considered cured This child has been followed for 40 months

The fourth case presented involvement of the entire tibia shaft at operation The pen osteum was ruptured and the bone presented a worm eaten appearance The epithelium over the scar has a tendency to break at vary mg intervals This case has been followed for 44 months

In the fifth case there was an infection of both tibix on admission to hospital and subsequently both humen. This patient is

This case has been followed for 48 months

The saxth case had a evere infection of the entire shaft of the left tibu at the time of operation. The periostem was incised over the length of the diaphysis. Two months late the entire diaphysis became sequestrated and was removed. The two fragments show no tendency to unite and a bone graft will probably be necessary to restore the tibus. This ca e has been followed 15 months.

The condition of the 8 unhealed chronic

cases is as follows

In one the infection di appeared after 3 months. A second showed a positive Vasser mann and at the end of 6 months wa under treatment at another hospital for syphilis An infected os calicia after o months 2 femora after 1 and 2 years respectively and a man dible after 1/4 years still have discharging sinuses. There is no sequestrum in the radio graphs of these cases

The epithelium over the scar of r tibia still has a tendency to abrade after 2 year

In one case in which the whole diaphysisbecame sequestrated from the tibia and was removed subperiosteally 4 years ago the lewas amputated. The tibial Iriginents showed no evidence of uniting and a secondary osteo myehits of the adjoining fibula with acute exacerbations rendered removal of the limb the logical procedure.

Subperiosteal resection of the entire diaphysis of the removal of large sequestra involving, the entire circumference of the shaft of long bones is to be avoided until sufficient involvezum has been formed to preserve the continuity of the bone. Of the 2 cases in this series in which the entire tibal diaphysis was removed, one had not regenerated after 4

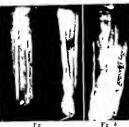


Fig. Th ti q trated tib lish li twith 1 c mplt in l crum format. The ties eq tild hift w emoved week afte thin kry.
Fi b Thee dt of thib 15 m nth l te

years and subsequently required amputation as previously stated. The other shows little tendency to regenerate after 17 months and will probably require a bone graft to restore the tibia. The 1 case in which the entire diaphy is of the ulna was removed shows slight regeneration after 4 years. The \ray findings illustrate the above statement.



Fg 3 Cmpl 1 qest 1 fth h ft 1 th h m ru th ffc ta 1 rum f rm t Fg 3b Th dt of the bo 35 rs late



Figure 10 shows the entire sequestrated tibial shalt in still without complete involucrum formation. Entire sequestrium was removed 3 days after this \ ray was taken

Figure 16 shows the condition of the tibia

Figure 2a shows sequestration of the entire ulna shaft without complete involucrum for mation. The entire sequestrated shaft was removed a week after this \(\sum_{\text{ta}} \) vas taken

Figure 2b shows the condition of the ulna



lg 4 C mpl te seq trat o f th h fl fa th r m ru lg 46 The dt I th h m rus 43 rs lat

The above illustrations show the unfavor able results that obtain when sequestra are removed before sufficient involucrum has formed to preserve the contour of the hone

Figure 3a shows complete sequestration of the shaft of the humerus with sufficient involucium formation. The lower part of this sequestrum was removed a week after this \ ray was taken. The upper part was removed 3 months later. A pathological fracture occurred at the time of the removal of the upper part which subsequently united.

Figure 3b shows the condition of the bone 3 years later

Figure 4a shows complete sequestration of the shaft of another humerus. The treat ment was the same as that described for the case shown in Figure 3

Figure 4b shows the condition of this

humerus 4 years later

1

Figures 3 and 4 show the favorable results obtained by waiting until the contour of the shaft has been preserved by sufficient involucion before the removal of the sequestra

The duration and prognosis are explained in Table VI

CONCLUSION

The necessity of early diagnosis and proper surgical treatment cannot be too vigorously advocated Too few of the cases in this series

majority of these that did receive early care recovered within 4 months on the average Early surgical treatment is the only means of reducing the morbidity and mortality. If sufficient dramage is instituted in the early stages destruction of the cortex is avoided and convalescence is short. If the time from

months or years

W wish t spress urth k t Dr C lB rdi kwh i harge of th Child en s S rpcal Serv ce F rth D s on B llevue II pital for th pri ileg frepo tig th se case

ondyle

FIROW FRACTURES AND DISLOCATIONS1

TREATMENT AND ANALYSIS OF ONE HOVDRED EIGHTY ONE CASES AT BELLEVUE HOSPITAL NEW YORK CITY

THE TOWN P STRIS M.D. BROOKEYS NEW YORK

THIS paper consists of a study of 181 consecutive cases, of fracture and disclocation in the region of the elboy joint treated on the Children's Surged Service Relevue Hospital between June 1919 and August 19 4. They occurred in children under 13 years of age. The intual treatment was instituted in the wards and continued in the outprittent department. It was to be expected that in obstinate and protracted cases the patient would be reluctant to return and would seek treatment elsewhere. With the co-operation of our social service department we were able to follow 172 cases (66 per cont.)

It was found that the treatment after reduction was more important than the initial
reposition and fixation. The chiucal course
demonstrated that accurate anatomical approvimation of the fragments was not absolutely essential for complete restoration of
function that a disfigured elbow resulting
from persistent displacement might have a
most useful function while an anatomically restored elbow might be lacking in mobility un
less nuderously treated.

CASE 1 O F 5 years old was admitted on August 9 10 2 after sustaining a transverse supra condylar fracture with backward displacement of the distil

B th

LASE 2 A.F. August 6 1927 gyearsold sustained a facture of the external condyle which extended into the joint. By means of the fluo oscope the frigments were approximated and the elbow placed

stored There was a nim union but it was observed that there was a steady increase in the size of the carry years

Case 3 F J 6 years old admitted March 3 year with marked antenor displacement of the lover end of the upper fragment this being about 1 inch in front of the complar portion. The lower and of the humerus was displaced posteriorly and outward. The ends of fragments were approximated with the angle of the filtories per and partially immobilited with an adheave dressing. Five weeks hater the chow could be extended to 160 degrees. The boy actively cooperated with exercises no

and a last was made

ange (ligs 7 to 11)

CLASSIFIC \TION

In classifying fractures above the articular surface of the humerus no attempt was made to distinguish between an epiphyseal separa tion and tractures occurring above the enphyseal line Separation of the lower humeral epiphysis was very common in young children It generally included the two condyles and the articular surfaces. It was extremely rare to observe in older children either a partial or a complete separation of the lower humeral epi physis without a small fragment from the dia physis remaining attached to it or the line of fracture running through the epiphysis into the articular surface All the diacondylar intercondular T 1 and atypical fractures were placed in the supracondylar group Fractures of the epicondyles were considered

R db for th Sec to 15 gry \ Y & Ac demy f Med in Oct be j g



Fig. (1ft) C. r.O.F. Trnes. padyle f with literefile et florffgmit \gutto 9 1 g z C.S. O.I. Prat the k. rd rpl. m. t fl. fragm t th tripp k. [periost um Sept mbe

as epphyseal separations. No di inction was made between fractures of the head of the radius and fractures of the neck, between the robicular ligament and becep tuberoast as the treatment was the same. The only complicating fracture found with posterior dilocation of the radius and ulna was that of the capitellum and trochlear surface. There are no forward di-placement of bones of the fore radius.

FREQUENCY

There were 170 simple and 11 compound fracture. The upracondylar group was the most common type of injury occurring 100 times (61 per cent) and found most frequently between the fifth and tenth years. Fractures.



Total tend of the first rether the dabley be the definition of the first rether the dabley be the definitely shown



Fg 3 Fg 4 Fg 5
Fg 5 Cae 1 O F V 1 who ng parate
por s Sept mbe 4 922
Fg 5 4 d 5 Ca O F V 1 rch 3 19 3 L
d est rat nof bo yeo t

of the internal condyle were encountered in 20 patients (11 per cent) and usually found in the unith tinth and eleventh years. The 21 fractures (11 6 per cent) of the external condyle occurred chefig) in the fifth seventh and ninth, years. The 3 fractures (1 6 per cent) of the head of the radius appeared after the eighth year. The 25 cases (12 per cent) of postaror discation of the radius and ulna were most frequently found between the ninth and cleventh wears (Table 1).



Fi. 7 C se 3 F J S pra dylarfra t mm s llim d haca tensti d f mut f ll g post d pl cm t f th l d f th b m ru



For a sind of Case a F J Mak doo ten din w dd plom nt ithel werh minli gin ta dio c arm Mini 204

MISTORS

In the injuries producing supracondylar fractures there suitally was a history of falling in the vitended hand with the forearm partially outstretched induced producing a fracture above the viticular surface of the humerus while those fractures which resulted from direct injuries were generally compound if note.

violence

The fractures of the epicondyles and covales followed direct majury or busing of the forearm. Set of the external and the of the forearm. Set of the external and the of the long of the forearm of the f

Is so a di Ces FJ August 924 Sho i g epa ti p e and b g nning rets ti of bons ontou

radius were produced. Scudder expluins them
by a fall forward upon the outstretched pro
nated hand with the elbow extended.

DIAGNOSIS

harry effort was made to armye at an accurate diagnosis before the part was flu pro-coped Extreme rentleness was exercised in all examinations and manipulations. The behtest disturbance in the relative position of the three bony prominences to one another and to the umnured elbon was established that is the relation of the olecranon to the humeral condules in the flexed and extended posit on Then the mobility of the head of the radius to its shaft on summation and pronation was determined. The deformity (Fig.) accompanying posterior di pla ements of the lower humeral fragment in supracondy lar fractures was very characteristic of this in jury General or localized swelling and pain not infrequently determined the seat of the le ion Disturbance of the relative angle of the oblique articulating surface of the humerus

with the ulna as compared to the uniquited

000					
	TABLE I - \GE INCIDENCE		TABLE II - DISPLACEMENTS	7,	
	S prac dylar fractu		Supra ndyla fra t	1,	
A	, ,	c 8	L per	I n	
2 34 4 5 6 7 8 9		4	Nd l cem t 34	g tTtal	
4		ż	Pinr 2	4	
5		28 2	Interior 47	2	
7		38	I ternal 2 E ternal 5	5	
8		8	Posten ad mt 2	1	
9		9	Posten ad ten r Anten a danten 6	6	
11		4	Ant n a dext		
2		1			
	Tot 1	- 00	D locate fith rade and las	09	
			D BOCK 9 1 to 12th and 102	T tal	
Age	Fra t re of feeran	Cus	i sien r i t n d ternal	8	
9		7	Itm diternal Ist dentral		
			• -		
	Total	3	With frict re cap tellum	3	
	Fratu [he d frad		Fra ed	5	
As	Fratu the difrad	Cases		•	
8			Frat sfntm I dyle	T ia	
9			N dspl m t	_	
12		2	Itmál dup sd	9	
	Total				
	Total		F ct e s of extern 1 o dyle	T tal	
	Inte alc dyl	C ses	N d pleme t	15	
Ag 6			Et not and up d	6	
7			_		
7		8	Fracture of he d i radius	Til	
		4		3 ' ' '	
12			\ d splacem at \(\text{rward and } \text{tw} \text{ to} \)	•	
	Tot 1	0	Int m land post n		
	F 1 2		_	5	
As	L tern 1 c dele	C ×	Fra tu fol ran	Tot 1	
2		1		101.	
3 5 6 7 8		5	N d ploem ! Upw d		
5			· · · ·	83	
7		•	Grand tot 1	8	
9		4			
,			elbow was ascertained so as to con	rect any	
	Tot i		down trop at the time of reduction	thus pre	
	Postrard loin fth rd nil	C es			
Ag					
3					
3 7 8 9		3			
9		4	tures of the condy les and in 7 cases	displace	
á		š	tion of the lower epiphysis detected in	der the	
			ment which vere not detected and fluoroscope In 6 cases the \ray	failed to	
	T tal	23	nuoroscope in a cases the		
	I Las				

demonstrate a fracture which clinically had every indication of a fracture being present Jones called attention to this in 1910 stating that it is impossible in quite a number of cases in young children despite excellent was then made on the arm by an assistant while the operator grasped the forearm with one hand and increased the deformity by hyperettension with the thumb forward

TREATMENT

All fractures and dislocations were treated as emergencies a member of the attending staff being called. The old accepted theory of waiting until the swelling bad subsided is erroneous detrimental and fortunately is no longer practiced. Swellings caused by Jacera

Permitting the position of the fragments to remain displaced results in organization of the blood in the soft parts diminished elasticity of the muscles and increased difficulty in re duction particularly in supracondylar frac tures Continued pain and muscular spasm retard functional recovery and may be fraught with serious consequences. If the intricate formation of the articular surfaces of the joint with its fossæ and irregularities in contour is borne in mind it will be seen that the shightest protrusion of bone into the joint combines with the organized hamatoma in producing exuberant callus which may permanently im pair its functions. This equally applies to posterior dislocations of the radius and ulna was then brought to a position of acute flexion the position of the fragments were ascer tained under the fluoroscope and a fixation dressing applied. The position of acute flexion of all fractures in the region of the elbow joint excepting fractures of the elcorasion process has long been advocated by Jones and Ashburst. Jones states that this position gives the most complete anatomical reposition of the figure in the favor function of the joint and it co-perates with gravity in the subsequent restoration of function

In fractures of the internal condule the

resulting in gunstock deformity could often be obviated by pronating the forearm after pulling the fragment down and placing the elbow in acute flexion

In tractures of the external condyle the up ward and outward displacement of the frag ment frequently accompanied by lateral mobility had a tendency to abduct the fore arm. The cloow was therefore fixed in a position of acute flevion with complete supination the supinators being a great factor in limiting the pronounced increase in the carrying angle

Fractures of the head or neck of the radius were maintained in scute flexion and supina tion for 3 to 4 weeks as the presence of a ro tated head which cannot be perfectly restored may throw out callus into the joint which may also become attached to the ulna limiting its mobility under which condition it may be advisable to everse the radial head

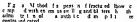
Fractures of the olecranon process were maintained in a position of extension with a postenor molded plaster splint for 3 to 4 weeks except for active flexion of about 30 to 40 degrees at the end of the second week

The admini oroscop

ment \(\) o attempt at reduction was made until complete relaxation was obtained

In supracondylar fractures the forearm in supmation was repeatedly flexed and extended so that the fragments were unlocked traction







FA 13 Proced es th pplies pplicat d b t c c frat res botth lbo 1 t

when the cast was reapplied. In no case was the necessity for operative interference in dicated

METHODS OF FIXATION OF THE FRAGMENTS

The fractured elbows were treated in one of the five methods to be described (1) pulley suspension in flexion (2) su pension in a Thomas plint for compound fractures (1) open operation (4) molded plaster plints (s) partial fixation with adhesive and early active motion

I Five children who were admitted 24 to 72 hours after mury with the fractures com plicated by swelling and blisters and with fragments that could not be successfully reduced under an anæsthetic were treated by suspension from an overhanging frame with the arm in a position of flexion (Fig. 12) Countertraction was obtained with a pulley

dications that it would interfere with the mobility of the joint another attempt at reduction was undertaken and the elbow was placed in acute flexion with adhesive

2 Compound fractures As a result of experience with war wounds one was naturally inclined to adopt the war method in civil practice Debridement and primary suture was attempted in v cases. In a cases primary umon with an excellent functional recovery was obtained In 2 cases the results were most discouraging The stormy course attending débridement and primary suture gave cause for tlarm. The few successful cases did not warrant the use of this procedure in children

Assuming that every compound fracture

wound was allowed to heal by granulation As soon as it was determined that the in faction was under control and some degree of union had taken place active motion was be gun. When it was suspected that ankylosis would follow the septic process, the elbow was put in a position which later would be most sericeable that is 15 degrees beyond a right angle

Open operation for simple fractures Larly reduction under the fluoroscope with an anæsthetic usually results in apposition of the fragments. If this is not possible open opera tion need not be undertaken as it has been repeatedly demonstrated that accurate ana tomical approximation of fragments particu larly in supracondylar tractures is not abso lutely essential for complete restoration of function In fractures of the condyles in which the rotation of the fragments could not be overcome by a closed reduction the ques tion of securing the condules to the shaft by an open operation was not considered because of the satisfactory functional results obtained with early active motion even though there m 1 dd n m n

.. 1

function and shorten convalescence early active motion within a limited range was instituted by partially immobilizing the elbow with an adhesive dressing (Fig. 73)

The adhesive dressing is applied as follows. A

third pece of gauze encircles the wrist around which a sing is tied with a surgical knot to prevent construction. The sling is secured around the neck over

about the elbow occurring during, the first 18 months of this series were treated by the routine antenor and po tenor modded plaster splints in a position of scutt fevor Three of these patients developed to dismann suchamme paraly is The elbow was examined dealy until the patient was distinged from the hospital and every other day thereafter in the out patient department. Beginning with the third week, active and passive motion was begun and the splints were reapplied in acitie flewing At the lab.

placed by a sing and baking and massage were re orted to. In siveral cases these procedures resulted in appreciable improvement in mobility of the ellow but in many children hand a condition of uncommonly encountered in treatment with bandaged or adhesive flexion

The dressing was examined daily. When

heave was placed about the dressing with the elbow in more nexts fervion. Thereafter active motion was allowed within the limits of the dressing. There need be no apprehen son of dislodging, the fragments by carly instead motion as the powerful muscles about the elbow splint the fragments. In no case was the position of the fragments believe to emplete union had taken place. If the apposition of the fragments was perfect the dressing was

too active massage and passive motion

5 Partial fixation with adhesi e 1d ear;
acti e motion In the effort to restore early

for 3 weeks. The adhesive was then cut down on both side and the range of active motion increased as much as the patient would com-



Fig 4 Case 4 IF March 18 19 c mm ted 18 upon d)1 fracture t dag theogh the olectra losses in h and from the point object by in and 19 test of the point of the point object of the point of

fortably permit. A similar dressing was then

sling Active flexion and extension were repeated at home every hour Beginning with the fourth week in accurately reduced frac tures and in the fifth week with persistently displaced fragments the extension was per mitted beyond a right angle and the patients were allowed to carry weights. The co operation of the patients was shown by their willing ness to demonstrate the phability of their elbow by actively extending and flexing their elbow within full possible limits. If the patient was unable to obtain the initial degree of flexion while the extension was increasing the elbow was replaced in acute flexion for another week this was an indication that extension was progressing too rapidly at the expense of flexion

It is very apparent that forcing motion under an anæsthetic in protracted and ob



F6 7 Fg 8 Fg 9

Fig 17 C se 5 F D M June 8 of cture through 1 rt cul lungs ricer f h meru

Figs 18 d 19 Case 5 F D M Sh wang reparatu minimuted fract i fcapt flum trochl

a 1 tem 15 dyle

stinate elbows is not only usefess but harmful Under the anasthetic the fibrous adhesions are broken up and the range of motion in creased at the expense of laceration of the soft parts with the result that on the succeeding days the limitation of motion has become more pronounced. The results from adhesive fixation and early active motion have been so uniformly assistanctory that the number of protracted cases have been in the comparative by few cases of children who have failed to return regularly. These cases have responded suitsfactorist to baking and ever greatle caress-

It was found that these procedures prevented

c
h
accompanies delayed and passive motion with

COMPLICATIONS

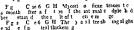
too active massage

The complications following fractures about the elbow were of a serious nature. For tunitely when recognized early they were cured and practically all could have been prevented. In order of frequency, the complications encountered were the following.

(1) Rigidity of the elbow from muscular spasm (2) exuberant callus (3) musculo







spiral and ulnar nerve compression (4) myo sitis ossificans traumatic (5) Volkmann s ischæmic paralysis

I Rigidity of the cibou due to muscular spasm occurred in an of our early cases from too active massage passive motion or motion under an anasthetic These procedures ment in the mobility of the cibou only to be followed by induration shelling evuberant callus and pain with frequently a loss in the range of motion These procedures are men tioned only to be vigorously condemned. In cases of muscular spasm complete rest for 1 to 2 weeks with gradually increasing active

exercises resulted in satisfactory improve

ment of function

2 Exhberont callus The chuscal records showed 30 cases of exuberant callus In no other joint is the presence of exuberant callus more to be deplored than in the elbow Displacement of fragments in intra articular fractures demand accurate anatomical reposition and prolonged immobilization. The greater the displacement the greater the outpouring of callus and the greater the limitation of mobility. Too great activity in massage and passive motion will stimulate osteogeness which will result in muscular spassin evuber anticallus and my ositio sosticans. There was not a single case of non union as children have demonstrated excellent reparative powers.

CASE 4 I F a girl 8 years old was admitted March 17 1920 with a comminuted Y supracon



Fig 22 C se 6 G H Sho inglimition in e t son de ggerated rijing a gl

sustaining a transverse fracture through the lower



Fg 3 Hypere tensi n el si chinge splint



the beginning of the second week Fl xion was

(see Case J O C)

4 Transaction myosilis ossificans

(Figs 17 to 19)

3 Musulospral and uluar ner-compression. There were of fractures complicated by compression of nerves about the elbow (7 of the musulo paral and 2 of the uluar nerves). It is important to determine the presence of paralysis before reduction is attempted. Not infrequently paralysis is discovered during the first week and may be due to stretching of the nerve or pressure by a fragment. When it develops later it is usually due to compress the paral of the par

teroseous nerve was most common) mjured beneath the supmator brevs and resulted in the inability to extend the wrist fingers or thumb. This paralysis was never permanent All the cases responded to treatment with an ela tie palmar lunge splint augmented by gentle massage and electrical stimulation. The two cases of ulner paralysis complicating supracondvlar fractures responded to treat ment 1 within 3 months and the other which

had a marked wasting of the interesses showed evidence of return in ansation in 3 months and regeneration of the muscles in 6 months (reached I OC)

4 Traumatic myosilis ossificans in 7 of our early protracted cases followed too great activity in massage and passive motion. Our physiotherapeutic department most willingly

there was considerable induration and a bony hardness over the brachials aniheus. The form of irritation traumatizing the soft tis use resulted in Increation of the muscular there with hemiorrhage and a plastic in flammation followed by osufication of the fibrous tis use from the inpured perosseum outward. This condition occurred even outward.

brally disable tartu

CASE 6 G H was admitted to Believue Ho p 1 !
August 9 1920 Fluoroscop exam at 0 d d n t
reveal the presence of it ctur There was a fluctu t



Fk 9 Fg 3r a Fg 3 b d d pl ement fth 1 w nd of the pp h m all d m nt 1 b 3 d b C o JOC Comp n of the ght nd left were d fth 1 m n av rs la 1

ing mass on the inner aspect of the elbow joint. The elbow y as placed in acute flex on. An X ray taken

ue him was referred for baking and massag. It was soon ob erved that there was conside able induration although the e

tensi n had imp oved to 65 deg e's. The nt

5 I olemann s ischanne parabists. Un fortunately, this senous complication occurred in 4 children. Three followed the application of molded spints in too extreme flexion and one resulted from a pad placed in the anticubical space. In 2 children this condition was



detected within 4 hours and in 2 others remained unrecognized for 3 days. In these

the forearm. Examination revealed a limited hand. When the wrist was extended the metacamonhalangeal joints became extended and the interphalangeal joints flexed When the west was flexed the fingers became extended and the hand invariably assumed a propated position with the forearm semiflexed Practically no active motion was po sible passiv motion produced pain. The sensation was not entirely lost in any of the cases but there was partial to complete tem porary loss of motor function in all cases The paralysis of the musculospiral nerve was not a pronounced as was that of the median and ulnar The paralysis of the nerves was a minor factor compared to the cicatricial con tracture of the muscle fibers which inhibited motility Stewart and Evins in exploring for the median and ulnar nerves in a case of Volkmann's ischæmic paralysis found them adherent on their deeper surfaces and depressed below the level of the rest of their course over the site of a fracture. The nerves were hardened due to overgrowth of fibrous tissue outside and between the nerve elements In our cases no operative measures were under taken They were treated by hyperextension with an elastic hinge splint attached to the



palmar surface of the forearm as illustrated (Fig. 23). The splint was worn 2 or 3 days and reapplied 2 days faster this procedure was repeated as often as necessary. Within the past 2 months a molded plaster elastic hinge splint on the dorsum of the hand has been more effective. Baking massage and electrical treatment failed to give the reponse that followed active and passive motion with a lunge splint. It was apparent that too great activity in the former direction resulted in induration and stiffness and further decreased the elasticity of the muscles.

lustrated or 3 days for occodure Within or elastic thand has age and fresponse s



Ig 36 Fg 37 Fg 38

Ig 36 C 6 S P Lo d 1 ppc h me 1 f gm nt which h d be stripped 1 ta m sc 1 rathach men! d bad on the 1 mu rep! d d ummob lie d pl tr plnts

Fgs 37 d38 Case 6 S P 43 1t boy tur fred

fragments in both cases were in good apposition and the results promised to be good except for the weakness in the extensors of the wrist in a case which appeared to be making satisfactory progress

Of the 9 remaining cases of simple fract tures which were followed 29 were treated with modded plaster splints There were 30 of these children who were discharged with excellent functional results 12 of these left the heopital with perfect apposition of the fragments and the remainder with vaned displacements as indicated in Table II. Of these 26 patients with complete restoration of function 4 had had musculospiral and 2 ulnar merce puralysis. In 9 of these fractured elbows there was a diminution in the carrying angle Three of the 29 patients in this series did not respond to treatment readily and have been under observation from 3 to 4 years.

Case 8 S R 11 y rs old w admitted 4

END RESULTS IN SUPRACONDALAR FRACTURES

There were rox simple and 8 compound supracondy lar fractures (6x per cent) Nine of the simple fractures could not be followed 7 of these had been treated with adhesive and were making satisfactory progress the other had been treated with molded splints the





Fig 30 Ca 18 S Cr C mpo nd praco dyl r i ct u d ed c mpl cat d by a fra ture of the rad d la Carr l D kin t e tim t after un uccessi i de b dem t and prim ry tu

Figs 4 and 41 C 18 S Cr years later bo y nksi 3 Fig 42 C se 18 S Cr ye r fter admis on Th as not uitable cas f r prima y s ture

1 4

massage The progress was slow. After 4 years the fragments have assumed a normal out ne and there is a flexion deform ty of 60 degrees and an extension defo mity of 160 degrees. Supination pronation

magments and earlier and more complete restoration



Fg 43 Csc H 7 w k fite 1m d ta hed term I dyl m ed i trm I d loc t n f rad and 1 pers t g
Fgs 45 nd 46 C sc H Z , l t r bo yanky lous



Fg 45 C se H Z o te ppearan in nths



Fig. 47 C 2 H Z Toal hilly rars ft compand fractu fith tim lee dyle thip of n direct fith rail a dut

elbon. Under an anasthetic the fragments were



Ig 48 C 2 Il R F t fth intern l dj df t re fth head fth d 3½ yearslt ro Im t g p t na dpro tio

flex on and an extens o of 150 degrees The mobility temporary improvement in m bil ty for 6 weeks. It



Sixty three of the 91 simple supracondalor fractures were partially immobilized with addressive In 5 of these the fractured part had been suspended in flevon from an over hanging frame because of the extensive extravasation in the soft parts. Twenty one children were discharged from the hospital

apper a ten au tpt in e ...

pres at there is a ma ked gunstock deformity ith
complete flexion e tension suppraction and prona
to but no ex dence of musculospiral paralysis
(Figs. 20 to 32)

Igg t i

with the fragments in perfect apposition and 42 with various displacements as indicated in Table II In a cases a musculospiral paralysis developed and was cured within 2 months in this sense, there were no cases complicated by Volkmann sischæmic paralysis or myositis ossificans and only 8 children showed some diminution in the carrying angle. The 63 children had complete restoration of function within 8 weeks to 2 months.

In the 17 simple supracondylar fractures in which a loss in the carrying angle later developed the fragments had not been accurately reduced this was particularly true in cases of separation of the lower humeral emphysis

There were 8 cases of composited supracondylar fracture all of which were followed up 7 patients were discharged with perfect function 1 developed my souths ossificans and had a dimmutuon of the carrying angle The eighth case resulted in a bony ankylosis of the elbox

C + D

tragment Débudement was donc the fragments were reduced the vound was packed with acrifiavine

tive motion with baking and gentle massage was encouraged. At the end of a year the child had a complete fun too alr covery except for very slight outward deviat on in the carrying angle (Figs. 33 to

Case 2 J R 3 years old was admitted May 16 19 o with a comp und upracondyla fracture. The wound was treated by the Carrel Dakin method. There as no di placement of the fragments. Th

fragment Débridement was done The Carrel Dakin method of sternheation was employed. The arm was suspended in a Thomas sphint. The wound healed by granulation. There was excellent functional result in 6 weeks.

COMPOUND FRACTURES—PRIMARY SUTURE

was applied A subsequent X ray examination

and d th h h h h a d a spints to

suggesting probable bony muscular changes con firmed by the X ray This undoubtedly was the

deformity. The carrying angle of both arms was very small the affected side appeared to be dim inished 5 to 10 degrees.

Case 16 S P 10 years old was admitted December to 1919 with a compound supracondylar fracture The lower 2 'inches of the upper frag ment was projecting through the skin and was resting on the forearm with the muscles completely de the 1 A A D A D Case The S Case T

arda i Mediment

stituted \ Thomas splint as used The wound healed by granulatin In 5 month the function was complied with the bility rult decept durantion nearity ng ngle

CASE 4 T I 6 v a sold wa admitted September 1 1920 with a compout d sup acondylar fracture with posterior d plac ment of the lower

CASE 17 W F 7 years old was admitted

t 11 1919 with extension deformity of 150 degrees and complete flexion. At present there is no disability or deformity

Case 18 S C 7 years old was admitted July 7
1921 with a compound supracondylar fracture
associated with a fracture of the radius and ulna and



F 47 Cas HZT dhlisers ft mpondict fth thale dyl thep t dle to fthe rad dla

marked posterior and invard di placement of the elbow. Under an anaesthetic the Iragments were



F 48 C HRF treftheint ! dy!

df t fth! d fth di 3/y rsl t cr

hmat g p t dp t

flex on and an ext us on of 150 degrees. The mobility

temporary improvement i mobility for 6 weeks it as then observed that ther was a 1 ndency t dropping of the wrist and an exuberant amount of



Ig 49 Fg 5

Th 49 (1 ft) Cs 3 M S T t fth t 1

Th 1 h h d fth r du few d d t d

tt f ll f gm t

Tg 5 Cs 2 M S y r lt n lm t t

mplete flet o e tension pinati n and pinna too but no vidence of musculospiral paraly s (Figs 2010 3) h 93 arsold sadmitted I net for total with a sup conditar fractue of the lithuments. Th I gments ere p tually approve it d and then immobilized in midded plast r

plats Three day later Volkma as ischam c

Sixty three of the 9x simple subtractond/for fractures were partially immobilized with adhesive In 5 of these the fractured part had been suspended in flevon from an over hanging frame because of the extensive extravisation in the soft parts. Twenty one children were di charged from the hospital the wound was cleaned the dislocation reduced and the detached external condyle was removed the triceps was sutured and the wound closed. The elbow was flexed in a Thomas splint. The same night the temperature rose to 106 degre s she at peared very toxic The wound wa re openel Carrel tubes were inserted and Dakin solution was u ed every 2 hours The temperature remained elevated for several days as the discharge became more profuse the temperature came down The posterior displacement of the radius and ulna re curred and persisted after an effort to reduce it un der the fluoroscope was unsuccessful One month

arm was in a position of mid upination and prona tion complete extension and flexion lacking 30 degrees but there was no evidence of myositis o sif cans The \ray examination showed the callus uniting the head and neck of the radius to the ulna (Fig 48)

CASE 22 At S o years old was admitted May o 1022 with the articular surface of the head of the radius directed forward and outward. The ends of

END RESULTS IN FRACTURE OF THE HEAD AND NECK OF THE RADIUS

Of L

tomical apposition in a cases 1 of which was associated with a separation of the external condyle none of these presented any disability after the third month. There were 2 cases with a displacement which persisted s of these (M S) had a forward and outward di placement which resulted in excellent function The other (H R) had a posterior and internal displacement the line of fracture running between the orbicular lighment and bicipital tuberosity in the final result there was a fusion between the smaller fragment and ulna which partially limited supination and promution

CASE 2 H R 1 years old was admitted

strated per istent rotation of the radial heal with firm union but no limitation of flexion extension supination or pronation. There was no deformity (Figs 40 and 50)

END RESULTS IN FRACTURES OF OLECRANON

Of the 3 fractures of the olecranon 2 were imple and the third was compounded the line of fracture running through the base of the olecranon process. Irrespective of the extent of the sulcus they were treated in extension by a posterior molded plaster splint operation not being indicated in these simple fractures In the simple fractures excellent function resulted in 6 weeks. In the third case A W which was compounded de bridement was done and a molded postenor splint and secondary suture were used. A very useful limb resulted

CASE 24 A W 11 years old was admitted November 9 1919 with a history of having fallen on his elbo i week before For two d as his elbow was swollen a d fluctuating 1 small wound over the fractured olecra on was excised and the frag ments vere expose! The wound was cleaned The m 1

fragm t Th epiphy cal line was normal At

i yo uisabii ty

END RESULTS IN POSTERIOR DISLOCATION OF THE RADIUS AND ULNA

The 23 cases of simple posterior dislocation of the radius and ulna have all been followed 5 were complicated with a fracture and for

ul as a 1 3 u je id then in a posterior m ll d splint at right ngles and supinate in Three we ke possible fracture of the skull. Under an anaethetic op n operation and d bridement were done the

6 months that any co operation was obtained. The \(\) ran examination then sh wed a fracture of the internal conclude. It is exercal minute fragments the ole ranon process invided into several fragments and some evidence of a myo tits ossificant. At the end of

Note - Condition of the patient and the extensive nound of the elbow his not make this a suitable case for primary suture

END PESULTS IN FRACTURES OF INTERNAL

There were 20 simple fractures of the condvles and epicondy les all of which were followed up. In 7 children roomigenograms revealed fractures which could not be detected with the fluoroscope. There yere 2 intra ar from too active mas are and passive motion

END RESULTS IN PRACTURE OF EXTERNAL CONDUCE AND EPICONDUCE

Twenty of the 21 fractures of the external condyle and encondyle were followed up 01 these 20 were simple and 1 was compounded Tifteen were di charged from the optal with the fragments in perfect and tomcid apposition in the other 6 the fragments were rotated upward and outward. The Nay revealed the pre-ence of fractures in 4 chooses which were not detected by the fluore.

was no impairment in function after a period of 5 wicks to 3 months though a slight promit nence of the internal condist was present in 3 of the cases and a diminution in carrying angle in 7. In none was there any indication for operative interference

In a of the elbow case, myosika ossificans resulted from too victive massage and passive motion. Two of these, children showed no evidence of this condition at the end of a year. In two a very marked bony muscular change ensued which persisted for almost 3 years. I has a limitation in extension of 60 degrees and the other of 30 degrees although all of the myosita os iteans had disappeared. (See Case 6 CH).

Case 19 B M 7 years old was admitted Sep tember 24 19 0 with marked s lling celemo is 0 or the internal condite. Fluo os pic and 1 ray followed up 13 had been treated with ad heave all but 1 having been discharged with perfect function within 6 months as were 5 of the 6 cases treated with plaster pluris 1n 4 cases there was an increase in the carrying angle 1n no case was it necessary to secure the condite by open operation

Case 7 /

The compound fracture Case H Z was as ociated with a posterior dislocation of the

the wound was cleaned the dislocation reduced and the detached external cond-to-was removed the treeps was sutured and the wound clo ed. The clow was fected in a Thomas spinit. The same night the temperature roe to rod degrees she appeared very tone. The wound was re-opened Carrel tube vere inserted and Dakin solution was not every a lours. The temperature r mained and every a lours. The temperature r mained in the control of the control of the control of the posterior is placement of the radius and unare currel and persisted after an effort to reduce it under the fluoroscope was unsuccessful. One month

later massage and baking was begun. In 1 month extension had improved to 135 degrees and myo its ossificans was present. Baking and massage were disco.

arm tion degre

degree

ossificans The \ray examination showed the callus uniting the heal and neck of the radius to the ulia (Fig. 48)

ulna (Fig. 45)
CASE 23 M S givens old was admitted May 20
1022 with the articular surface of the heal of the
radius directed forward and outward. The ends of
the fragments were approximated and the cllow
as immobilized it is adhessive in a cute flevion in a

END RESULTS IN FRACTURE OF THE HEAD AND NECK OF THE RADIUS

Of the 5 cases of simple fractures of the head and neck of the radius 2 were treated with plas

tomical apposition in 3 crises 1 of which was associated with a separation of the external condyle none of these presented any dis ability after the third month. There were cases with a displacement which persisted 2 of thise (M. 5.) hid a forward and outs 1 of placement which resulted in excellent function. The other (H. R.) hid a postenor and internal of placement the hine of fracture running between the orbicular ligament and bicipital tuberosity in the final result there was a fu in otherween the maller frigment and ulna which partially limited supmation and pronation.

Case 2 H I 11 year old was admitted

supmation or pronation. There is no deformity (Figs. 49 and 50)

END RESULTS IN FFACTURES OF OLECRANON

Of the 3 fractures of the olecranon a were imple and the third was compounded the line of fracture running through the base of the olecranon process. Irrespective of the extent of the sulcus they were treated in extension by a posterior molded plaster splint operation not being indicated in these simple fractures. In the simple fractures excellent function re ulted in 6 weeks. In the third case A. W. which was compounded de bindement was done and a molded posterior splint and secondary suture were used. A very useful himb resulted.

Case 4 A W 11 years old was admitted November 9 919 with a history of having fallen

over frag The

```
i at a backward displa ement of the upper
fragment. The pipby eat inc was n rmal. It
tem:
tl
e
```

ır

t
d 1g 1 1 3 d ys an 1 th n in a po ter or molded
spl nt at right angles and supinat on Three week

, ખાલકા સ

END RESULTS IN POSTERIOR DISLOCATION OF THE RADIUS AND ULNA

of 5 \ ward displacement of the capitellum. All were successfully reduced under anesthesia it were immobilized in molded splints and i with adhesive. In the cases complicated by

tures of the capitellum there was no disability at the end of a months

SUMMARY

Children have excellent reparative powers in fractures

Perfect anatomical approximation of the fragments is not always essential for functional recovery

Di placement and overriding of fragments will often result in a good functional limb and complete restoration of the bony contour

Anatomically restored elbows may be lacking in mobility unless they are treated judiciously

The best results are obtained by immediate reduction under in an exthetic with the aid of the fluoroscope

Partial immobilization with addicate and early active motion will reduce swelling increase muscular foncity and prevent muscular spasm exuberant callus Volkmanns ischarme Diralvess and mossits ossificans.

La sive motion with or without an arres thetic and active mas age retards progress

Musculo pital and ultri paralysis accompanying and following fractures about the elbow is not alway permanent

Myositis os ificans will di appear with the discontinuation of trauma to the brachialis

Open operations in children are not in dicated as good functional limbs will follow di-placed fragments and infections are very prope to follow open operations.

Compound fractures are bost treated by dehedement Carrel Dakin stenlization sus pension in flexion by adhesive or in a flexed Thomas splint to be followed by secondary suture or granulation with the institution of early tellice motion

I do t to a kn ledge my gre t pp cost a t D
(a 1 C But I derect r f th F 1 rth D f th
gnm at f th ca. s which mad this tud po bl

HÆMATURIA A CLINICAL STUDY BASED ON 933 CONSECUTIVE

By HERMAN I. KRETSCHMER MD FACS CHICAGO

TT would seem that the presence of blood in the urine is a symptom of sufficient im nortance to impress upon both the phy sician and the nationt the necessity for an immediate investigation in order to determine the cause of the bleeding. Yet, many times both patient and physician minimize the importance and the gravity of this symptom and when the bleeding stone as it so fre quently does the patient is lured into a sense of false security and the opportunity for an early recognition of pathology and the chance to recognize severe lesions in their inciniency are often passed by with the result that ir reparable damage has been done and in some instances the condition is beyond relief

Hematura is often intermittent in char

th

presence of blood in the unine means the presence of organic disease in the genito unnary tract. If this viewpoint would be assumed by all physicians many patients who now seck relief for vanious urological lesions would be seen early in the course of the disease, at a time when much could be done

coming to the urologist with far advanced lesions many of which are beyond medical or surgical relief.

À review of the literature of the last opers shows a gradual and almost complete disappearance of the vague and indefinite terms that were used for describing the presence of blood in the unne Feschtal bereatura winopathur renal bleeding etc are but expres ions of our inability to deter mune the cau e of the bleeding and are generally u ed to glo s over the neglect of giving the patient the benefit of a complete.

The representation of the limited of the literature to the literature of the literature to the lit

gento unnary examination There are how ever at rare times cases in which the cause of the hæmaturia cannot be determined and this proves that there are still limitations in our present diagnosite armamentarium. Only in 313 per cent of the cases in this series was a diagnosis impossible. But in the majority of instances in this series a diagnosis was established (66 86 per cent) and because of the fact a complete gento unnary examina

In order to substantiate the statement that blood in the unne means the presence of organic disease in the genito unnary tract a review of 022 cases was undertaken. In this study cases of hometure due to acute gonor rhæal infection hæmaturia following the passage of sounds systoscopes and bourses and hamaturia following injuries of the kidney bladder and urethra were not included as the cause of the bleeding was obvious Before undertaking an analysis of these cases it would seem advisable to consider briefly the duration of this most important symptom before the patient came under observation It has previously been stated that many of these patients came in much too late in the course of their illness to have the best on portunity for treatment. A review of the histories shows that the average duration of hæmaturia or the average time that clapsed between the onset of the hæmatura and the time at which the examination was under taken was 2 30 years The shortest duration of hematuria was I day and the longest duration was 35 years

AGE

Blood in the urine may occur at any time during his but as more frequently found in adult his than in childhood—ince the lessons which produce it are more common in the later years—The youngest patient who sufward displacement of the capitellum All were successfully reduced under anesthe a 11 were immobilized in molded spilnt, and 12 with adhesive. In the cases completed by dislocations complete restoration of function resulted at the end of 5 weeks. In the dislocations which were complicated by fractures of the capitellum there was no disability if the und of 3 months.

SUMMARY

Children have excellent reparative powers in fractures

Perfect anatomical approximation of the fragments is not always essential for functional recovery

Di placement and overriding of fragments will often result in a good functional limb and complete restoration of the bony contour

Anatomically restored elbons may be lack ing in mobility unless they are treated judiciously

The lest results are obtained by immediate reduction under an an esthetic with the aid of the illusproscope

Partial immobilization with adhesive and early active motion will reduce swelling increase muscular tonicity and prevent muscular sprism evulcirant callus Volkmann's ischemic paraly is and myosits ossificans

Passive motion with or without an ares thetic and active massage retards progre s

Musculospiral and ulnar paralysis accom

punying and following fractures about the clow is not all ays permanent Myositis or ificine will disappear with the

di continuation of trauma to the brachiau unticus Open operations in children are not in

dicated as 600d functional limbs will follow displaced fragments and infections are very prone to follow open operations. Compound fractures are best treated by

Compound Hactures are best treater debridement Carrel Dakin stenlization sus pension in flexion by adhesive or in a flexed Phomas splint to be followed by secondary suture or granulation with the institution of early active motion

Id so to acknowld me grat precast of D. Critical district for fith Forth D. n for the a precent fith case which de this tudy pools

2

Ś

Lessons of the bladder form the next largest group of cases in this study a total of 207 cases (36 85 per cent) An analysis of this group showed that in 235 cases (76 c per cent) tumor was the mosting cause of bladder homorrhage that stone ranked second and tuberculous third This shows a somewhat different relationship from the factors in kidney bleeding since tuberculosis stone and acute infections are more frequently the causes than renal turnor. It should be em phasized housever that the tuberculosis in these bladder cases was secondary to a similar affection of the wenital tract or remained after the removal of a tuberculous Lidnes

TABLE IV --- LESIONS OF THE BLADDER Сr ma 62 Pap ll m Tubernilo Çıtı ticulum ru t ting evetit lvpr Čitt yt Chrnco ti detoo nan beess Bldd g m Bl dd g m R pt d rt ry in bladder T tal 3.7

lesions made up 84 o per cent of the prostatic causes of hematura

The next group in frequency of occurrence are lesions of the ureter The total number of cases in which blood was present was 54 of which as were due to stone

TABLE ST -TERIONE OF HEFTER

48 Ct no Street ς. C ren m T 4.1 .

If traumatic lesions and acute gonorrhoad infection are excluded urethral lesions are very rare as causative agents of bleeding Table VII mentions them

TARTE VII -TESIONS OF THE IDETHRA

P n Homa of ureth a Strict e of fem 1 ureth Prol pse f fem l ureth a Plyp of p st thr T tal

The group of general disease in which hæmatuna occurred numbered o or ro8 per cent of the total number of oa8 cases The cases of cirrhosis of the liver may be open to question, but in view of the fact that this group was very carefully studied and no other diagnosis was made they are included at their face value

TABLE VIII -GENERAL DISEASE GROUP

Ъ× Hem ph 1 Batt d Ph phat ta T + 1

GROUP 2 CASES IN WHICH A DIAGNOSIS WAS NOT MADE

In 12 cases (1 3 per cent) neither the or it in of the blood nor the cause of the hæma turia was determined this in spite of the fact that all the patients were subjected to a very complete urological study. These patients were seen at a time when there was no active bleeding and all modern methods of examina tion Lere negati e

hæmatura was due to a stone which was passed before the patient came under ob servation (2) that on account of the chemical composition of the stone it could not be

833

12

6

fered with hæmituria was 2 years old and the oldest 84 years Between these two extremes we find the ages as shown in Table I

TABLE	I →YCE
l rs	Ces
rt o	
10 f	S 4
10.3	120
3 t 40	1 0
40 to 50	140
5 I óo óo I	94
60 L	147
70 t 80	67
O er 8o	
70 l 80 Oer80 Nitslid	4
T tal	933

SEX

Blood in the urine is more prevalent in males than in females, because in the form r certain lesions such as both benien and malignant tumors of the bladder as well as lesions of the prostate are common fre quency among the seves is given in Table II

TABLE II -- SEX

C ses Viale	6
I mal N t tated	
	_
Total	93

DIAGNOSTIC SURVEY

The 033 case in this eries may be divided for purposes of study into five groups Group 1 Ca es in which the diagnosis

was made Group 2 Case in which the dragnosis

was not made Group 3 Cases in which the origin of the bloo I was determined but not the

carise Group 4 Cases in which the examina tion was incomplete

Group 5 Cases in which no examination was made

Seventy two cases are not included for the following reasons (1) In 12 ca es no gemio urinary examination of any sort was made (2) in bocases the examination was incomplete In the 12 cases cited the patients presented

themselves with blood in the unne or were seen in consultation at their homes with their

family physician or were seen in other hospitals or for various other reasons no examination was made. Nece-sarily the question of diagnosis remained unanswered In the other 61 cs es the examination in one detail or another was incomplete and for this reason they are not included in the analysis But in the remaining 861 cases the ditt at hand were sufficiently complete to entitle them to consideration in this study

GROLI I CASES IN WILICII A DIAGNOSIS 1 45 17402

Deducting the 72 cases in groups 4 and 5 there remained 860 cases which were utilized in this study. Of these 560 cases a diagnosis was made in 833 (97 56 per cent)

A certain pos ibility of error may obtain in some of the charmoses such as overlooking an early renal tuberculosis that is masked by an acute pyelitis or, on the other hand a very mall kidnes tumor may possibly have been my ed in which events the figures of the more scrops lesions found would be still further increased

Of the \$13 croes in which a diagnosis was made hamatuna in 331 cases (30 3 per cent) was due to lesions of the kidney which in their order of prevalence were as follows Tuberculosis stone pyelitis malignant tu mors and a photis. It is evident therefore that the mo t frequent lesions of the Lidney producing bleeding are lesions of great im portance that demand early recommism and the institution of early treatment

			Cis
	Tuberc ! s		8σ
			,
5	51 6		7 58 37 3
•	Lyelt		17
	Milgrattmirs		31
I	Ner herti		3_
			3
	II dropen costs		
2	I droughtersus		7 5 4
	S pect t berc 1 is		5
е	P ₁ ohros		4
_			1
	Lycht of licul 115		
	I fret 1kd ey		1
	at ab) kd y		
	11 304 40 7		
3	Prelius Ip eguancy		A.
	Pyet us 1 p exame		
3	Hamston of p gna	,	
	T tal		33

PROLAPSE OF THE FEMALE URETHRA1

BY THOMAS I WATKINS M.D. FACS CHICAGO

THE subject of prolapse of the female urethra would seem to be a trute one to present to a special society. The literature and clinical observation however indicate a great diversity of opinion relative to the etiology and operative repair of ure third prolapse. An effort will be made to avoid much detailed discussion.

This paper is chiefly concerned with down ward displacements of the entire urchiral body and will ca ually refer to prolapse of the urethral mucosa through the meatus and hermation of the mucous membrane through a rent in the urethroxaginal fascia.

FREQUENCY

Urethral displacements romprise the large majority of urethral diseases malformations infections and new growths being relatively infrequent

ETIOLOGY

Urethral displacements are almost solely the result of traumatism of labor. The ten son upon the fa ca which causes the lesson is chiefly produced by downward pressure of the fetal head on the cervix or by traction in forced delivery. If this be true casy and early retraction of the cervix prevents displacement of the body of the urethra. Semile attophy and infection are prominent factors in prolange of the mucosi cerumical.

PATHOLOGY

Urethrocele is sagging of the entire urethral body due to injury of the vestovaginal fascia. The lesion is essentially a transverse rent or attenuation in the upper portion of this fascia. If the fascia is put on longitudinal tension by pressure from above the injury must be essentially transverse. The part been the

riso shows the lesion transverse (usually ragged) at the upper part of the vesico vaginal fascia. The fascia is otherwise gen

erally found completely intact. In sagging the urethral body rotates on the pubic bone without being much displaced from the bone In an occasional instance the upper may be slightly more displaced than the lower por tion of the urethra. The so called funnel shaped urethra, may be very rare.

Striching retraction and fixation are important factors in the development of all herme and especially so in this one. The ritracted fixed tis use in urchrocole is found behind the pubes to either side of the base of the urchra (this fact bears an important relation to mobilization and suture).

Injury to the vesical sphincter involves stretching tearing retraction and fixation without destruction or atrophy—comparable to injunes of the sphincter am. In both irreparable damage seldom if ever occurs

Increased mobility of the inner tube (the mucous membrane of the urethra) is present when there is much protru ion of the mucosa through the meatus. This is easily demon strated by dissection as will be noted later Emmet devised his button hole operation for the cure of this lesson. Emmet is work on prolapse of the urethral mucous membrane has not received deserved con ideration.

Chronic infection of the bladder the result of increased residual urine is important in the pathology of urethrocele is observed and recorded by my associate Arthur Curtis

We have had only I patient with a distinct lesion in the urethrovaginal fascia A hermal

simulating a cy t symptoms were absent except for protrusion

SYMPTOMATOLOGY

D + . –

cinei symp

I Re lascia is otherwise gen tomatology

R dbef b Chie to Gynecologu I Soc y J mary 5 9 5 (For disk asson to P 7 3)

demonstrated with roentgen rays (3) that the hemituma was provoked by an early renal tuberculosis such as an early tuber culous involvement of one of the papillæ though no evidence of tuberculosis wa ob

run its course so that at the time the patient came under observation no evidence of infection were present (5) that there is the possibility of a small tumor having been over clooked (6) that gross bleeding at times is the only and sometimes the first symptom of nephritis no doubt if the cases in this group could be followed through for years thus point could be proved or disproved (7). That on account of 8 of these 12 cases being females the possibility of error should be taken into consideration i.e. the blood in the union may have had its origin in the gentials.

GROUP 3 CASES IN WILCH THE ORIGIN WAS DETERMINED BUT NOT THE CAUSE

In 15 cases the ongin of the blood was determined but not the cause the failure finally to determine the cause being due to the fact that the patient failed to return for fur their urological study. Doubtless the cause could have been determined in some of them had the patients remained under further observation. These cases really belong in the group of cases in which the examination was incomplete but in view of the fact that the ongin of the blood was determined they are included in a separate group.

Associated symptoms. Then if one were inclined to minimize the importance of hemituria in the enes of cases there were enough co-cristing symptoms present to focus the attention of both phy ican and patient upon the fact that further investigation was nece sary. An analysis of the cases should that pain was very frequent and that it varied nothing definite as regards symptomology will result. The following symptoms were

Pa Freq cy Pu	6 5
ru Bmg laugelts	3 4
Kete t'n Ie	04
I mating of autea Lhills	qf
Casts Fubercl b cillu	53

To resterate for the sake of emphasis the statement will be made that tumor or new growth was the most frequent cause of bleeding In 325 ca es tumor somewhere in the unnurs tract provoked the blood If benign hypertrophy of the pro tate is re garded as a new growth 64 more cases may he added and a total of 180 case or 46 o per cent of all couses of ham turns are due to new growths will be reached Stone ranked second as the causauve factor of lileeding being present in 154 cases or 18, per cent and tuberculo : third in or cases or it? per cent. As previously stated it is nos ibl that some of the cases of renal tuberculosis were missed in which event these figures would be still higher Acute infections were present in 80 cases or 107 per cent and nephritis was the cause in 27 cases or 3 2 per cent

SUMB ARE

1 Hematuna is only a symptom but it should always be considered as indicative of the pre-ence of serious organic disease in the gento-urnary trac

- 2 Every case of hematuna should be subjected to complete comprehensive genito uniary examination to determine first the onigin of the blood and second the cause of the bleeding
- 3 There is never any justification for treating cases of himatuna on a purely symptomatic hairs.

the passage of clots In view of the fact that the fesions producing the blood cary greatly in character it is natural to expect that

PROLAPSE OF THE FEMALE URETHRA

BY THOMAS I WATKINS M.D. FACS CHICAGO

HIF subject of prolapse of the female urethra would seem to be a trite one to present to a special society literature and clinical observation however indicate a great diversity of opinion relative to the etiology and operative repair of ure thral prolapse An effort will be made to avoid much detailed discussion

This paper is chiefly concerned with down ward displacements of the entire urethral body and will casually refer to prolapse of

FREGUENCY

Urethral displacements comprise the large majority of urethral diseases malformations infections and new growths being relatively infrequent

ETIOLOGY

Urethral displacements are almost solely the result of traumatism of labor The ten sion upon the fascia which causes the lesion is chiefly produced by downward pressure of the fetal head on the cervix or by traction in forced delivery. If this be true easy and early retraction of the cervix prevents displacement of the body of the urethra Semile atrophy and infection are prominent factors in prolanse of the mucosa (caruncle)

PATHOLOGY

Urethrocele is sagging of the entire urethral body due to injury of the vesicovaginal fascia The lesion is essentially a transverse rent or attenuation in the upper portion of this fascia If the fascia i put on longitudinal tension by pressure from above the injury must be essentially transverse. The part near the

erally found completely intact. In sagging the urethral body rotates on the pubic bone without being much displaced from the bone In an occasional instance the upper may be slightly more displaced than the lower por tion of the urethra The so called funnel shaped urethra may be very rare

Stretching retraction and fixation are im portant factors in the development of all hernix and especially so in this one The retracted fixed tissue in urethrocele is found behind the pubes to either side of the base of the urethra (this fact bears an important relation to mobilization and suture)

Injury to the vesical sphincter involves stretching tearing retraction and fixation without destruction or atrophy-comparable to injuries of the sphincter and In both arreparable damage seldom af ever occurs

Increased mobility of the inner tube (the mucous membrane of the urethra) is present when there is much protrusion of the mucosa through the meatus. This is easily demon strated by dissection as will be noted later Emmet devised his button hole operation for the cure of this lesion Emmet's work on prolapse of the urethral mucous membrane

the pathology of urethrocele as observed and recorded by my associate Arthur Curtis

We have had only a patient with a distinct lesion in the urethrovaginal fascia. A hernial

sumulating a cyst Symptoms were absent except for protrusion

SYMPTOMATOLOGY

P

also shows the lesion transverse (usually ragged) at the upper part of the vesico vaginal fascia. The fa cra is otherwise gen

tumatology

R diefor h Ch. go Gynec in 1 Society J mary 6 95 (F disc into se p ? 3)

DIAGNOSIS

777 cel

wa mined by passing a ureteral sound. The extent of displacement is determined by push

represents the extent of the unethrocele as the urethra is normally in a fixed location In doubtful cases examination in the standing or squatting position is of great value

TRUATMENT

The treatment of urethrocele is entirely operative The indications for operation are the presence of other pathology necessitating repair and incontinence of unne. Uncomplicated urethrocele is eldom observed

If the etiology and pathology given are

is done the type and extent of the lision can be readily determined and successfully repaired by utilizing the established principles of hermotomy

Important features in the operative repair are free mobilization at the chief site of retraction transverse suture at the site of injury of the vesicovaginal fa cia so that the sag of the urethra will be corrected and care in bringing firm tissue together over the base of the weether as recommended by helly some years ago. Di cussion of detailed tech mone at this time does not seem to be neces STEV

PROLAPSE OF THE LEETHRAL MUCOUS MEMBRANI (CARUNCLE)

Mild cases may be treated by topical applications cautery fulguration or radium

It is important to recognize the acute case due to infection which will respond to simple treatment

We have been interested in the operative treatment of the rather exten me type with freely movable and redundant mucous mem brane In a few such cases we have obtained very satisfactory results with a modified I.m. met operation the modification consi ting in not opening the urethra or excising the redundant tissue A longitudinal incision is made through the urethrovaginal fascia the inner tube is di sected enough so that it may be pulled without undue tension into the wound sufficiently to restore the prolapsed mucosa within the urethra when it is fixed by sutures A narrow stop of fascia is left

RESULTS

attached to the mucou canal along the mid

Thorough dissection in the repair of prolapse of the urethra always seems to supply a sufficient amount of firm fascial tissue for successful repair Failure to obtain sainsfac tory unnary control has been due I believe to errors of judgment or defective technique rather than to the absence of to sues

SUMMARY

1 Urethrocale is usually associated with

a stocele 2 The le ion is g nerally a transverse ranged tear or attenuation of the upper part

of the vescovaginal fascia

suture

4 The probabilities of cures should be ex cellent as strong fascial tissues can be utilized

RESIDUAL URINE IN WOMEN'

BY ARTHUR H CURTIS M D TACS CHICAGO

THERE appears not to have been sufficient recognition of the frequency or importance of residual utine in women Also although the leading gynecological clinics have most heartily supported our views there is still a lack of uniformity in the management of this disturbance in vescal function

Residual urine occurs not only in associa tion with cystocele in the guerpenium and after operation it frequently develops during the course of pregnancy and may re ult even from no greater cause than habitual distintion of the health bladder

Presous to 1915 when we first called attanton ton to the frequency of this condition our patients had much trouble with postoperative unnary tract infection among our most dreaded ghosts were those who returned to our office after operation or labor complain mg of varying degrees of bladder discomfort.

After 1915 upon realization of the importance of readual urine we instituted the present p an of postoperative freatment. At the

ological investigation of the urine in all cases of suspected infection. A complete report of this clinical and laboratory study made in 1922 covered a series of a 595 patients. Since that time observations have been continued but spical investigation has been limited to those cases presenting features of unusual interest.

In the few mnutes at my di posal I wish for the sake of clanty to briefly outline our minagement of these cases and will also with out detail tell you the results which we have obtained

MANACEMENT OF BLADDIR AFTER OPERATION

U e of the catheter is a forded when possible but no patient is allowed to suffer from distention

C A H M agemen f h f mal sy bladd pera i dur ng pera j Am M.A. 31 6

Failure to unnate within several hours after return from the operating room is not in its distillation reason for eitheterization distress, should be the chief indication. It is true that marked sistention should be relieved but this does not often occur in the absence of notable, pun. Provided the catheter has not been required the prisence of some residual unne for a few days is not a particular memce.

Patients who require repeated catheters ration almost invariably fail to recover immediately the power of complete evacuation

which is responsible for our present improved results. Catheterization immediately after unnation preferably with slight bladder lay age should be repeated once each day until residual unne disappear? Instillation of a small amount of antiseptic solution before withdrawal of the cribiter e.g. is ounce of 35 per cent mercurochrome is a helpful ad junct. We also give unnary anti-optics by mouth

RISULTS

In contrast with previous experience we

tained from the clinics of John G Clark I schard R Smith Reuben Peterson and George Gray Ward

Serious infection has become so uncommon that its appearance is always an indication for inquiry into the patients previous history. In fact we confess having thus unearthed a previously existing tuberculous infection of the 1 d.

R dit for be Ch to Chance is 1 coc 21 12 6 92 (E que so see D 14)

It should be noted that some patients com plain of the discomilates of catheterization and uterhral fissures occasionally develop. To avoid the latter the catheter must be firm and should be lubricated with solid petrolature. Another minor flaw in our present method of

until residual urine disappears

CONCLUSIONS

- r Residual urine is of frequent occurrence in women
- 2 Provided postoperative (or postpartum) catheterization has not been necessary the

temporary presence of some residual urine is not a particular menace and seldom demand treatment

3 It a unnecessary to torture patients through refusal to cathetenze when the full bladder causes distress. We need only to realize that those who require repeated cathe tenzation do not recover immediately the power of complete exacuation upon return of spontaneous micrutinion. In such cases daily withdrawal of residual urine until function becomes normal affords excellent prophylaxis against unnay tract infection.

Note —The disc asson of this paper as find p.p. 724 is most important and a it bings in a wipha. I the subject the read river extend to read this discus

THE SEDIMENTATION TEST IN OBSTETRICS AND GYNECOLOGY¹

BY TOSEPHIL BARR MD FACS AND RALPH A REIS MD CHICAGO E mit D: m + fObtts dGy ecley fth Mich IR

AHRAEUS (7) in 1997 made the ob servation that if citrated blood from a pregnant woman is allowed to stand in a tube the erythrocytes will senarate from the plasma and settle to the bottom of the tube The rate of settling down or sedimentation time of the erythrocytes varied in different specimens as well as in different periods of pregnancy. It had been known for centuries that blood from a patient suffering from any inflammatory disease if allowed to stand would senarate out into two portions one

-- --the de

(24) in 1701 first noticed that the speed of sedimen tation varied in different specimens. Interest in this reaction was revived during the middle of the last century by Davy (s) Lehman (28) Mueller (37) and Nasse (28) all of whom studied this reaction but were unable to explain it or to correlate its various phases After I ahraeus made his original observation on the blood of pregnant women be began to investigate this phenomenon in patients suffering from acute infections and found that the rate of sedimentation varied greatly in different types of infections and even in different periods of the disease in any one patient Linzenmeier (30) then undertook studies of the sedimentation time throughout the different periods of pregnancy labor and the puerperium. This was done in the bone of evolving a definite and accurate early test of pregnancy He soon abandoned this idea

arced. The technique of Linzenmeter appears to be the most reliable the most accurate and also the simplest of all the various methods that have been suggested and it was therefore

and especially friedlander (11) who states that it is the method most free from error. He also makes a strong plus for the adoption of this method by all investigators in order that all reports may be expressed in similar terms and thus be comparable

The tubes used in the Linzenmeier method as modified by Friedlander are hard glass tubes s millimeters in diameter and 6 s centimeters in length and have a capacity of more than I cubic centimeter They are marked at the r cubic centimeter point and also at 6 r 78 and 24 millimeters below this mark. The tubes as well as the syringe with which the blood is drawn from one of the superficial veins at the elbow must be perfectly clean and dry Two

shiken until mixed and then placed in one of the tubes and allowed to stand at room tem perature The blood mixture level must be exactly at the r cubic centimeter mark. The time is taken when the mixture is placed in the tube and again when the line of demarcation betwe n the erythrocytes and the plasma reaches the 18 millimeter mark, a millimeter reading is also taken at the and of a hour This latter reading has been recently recom mended by I inzenmeier (34) and also by Geppert (14) as being more comparable than the number of man a

most marked changes in rate occur dema The sedimentation time or rate is the

number of minutes required for the red blood cell to separate from the plasma of citrated blood Many methods and type of tubes for making such determinations have been de-

and b

in this report. Another advantage of the I hour reading hes in the fact that much time can be saved in specimens requiring several hours for complete sedimentation

The sodium citrate solution must be comparatively fresh as Geppert has shown that variations occur with old solutions. The tubes must be kept vertical (Berezeller and Wastl

massive rouleau formation. Fahraeus later

valueless Friedlinder and others have claimed that the institute may be shaken and the readings taken for a second or even a third time but Linzenmetr states that the second reading is always more rapid than the original one. We have found a variation amounting to as much as 10 per cent due to the fact that the erythrocytes never become thoroughly remixed in the plasma

Rothe (43) has divided the sedimentation

tion slow again and thatly class because intersthrootes are pricked in the bottom of the tube as closely as possible. He does this because her of the opinion that readings should be taken every 5 minutes and curves plotted from these results. Luzzameier kok and others also feel that the plotting of curves brised on 3 minute readings is of value but we have been of the opinion that too much unnecessary detail is thereby involved. For

suffice

Many mye ugatious have been undertaken to determine if pos ible the mechani in of this sedimentation phenomenon and the fictions involved As yet none has seemed to be successful nor has any satisfactory theory been advanced to account for the various been advanced to account for the various changes in rate and chraceter of the sedimentation. Tahraeus Hueber (25) Vorschutz (23) and Clausser (4) hold that the crythrocy tecarry negative charges and therefore repeach other Agglutamis carry positive charges and when these are increased in the blood stream they take up the negative charges of the crythrocy tes. The latter no longer repeach other and therefore clump together in a

that the fibringen content is a factor but Linzenmeier has shown that defibrinated blood gives the same results as though the fibringen were not removed.

Abderbalden Clau er and Linzenmeier feel that there must be a change in the viscosity to bring about a change in sedimenta tion but all are unable to determine whether this is due to a disturbance of antibody balance or to albumen and elobulin content That the number of immune bodies present in the blood stream plays a rôle is evident (Linzenmeier Leenderetz 20 Dettingen Ar) as is also the lipoid balance and the question resolves itself into a consideration of the physicochemical reactions of the plasma proteins. The problem 1 still unsolved how ever and in fact is becoming more involved as more workers become interested in this subtect

Another factor entering into the main tenance of the suspension stability of the

of sedimentation is therefore inversely proportional to the erythrocyte count. The sedimentation rate is also very slow in the secondary agreemas.

It would seem therefore that after all the theores and experiments regarding the tology of the changes in the sedimentation rate have been studied no definite conductors can be reached. Will off the abox ementioned factors have some part in this reaction but nothing more definite can be said at the pre-ent time. The question is still unsolved and offers a fertile field for furthe investigation.

Many workers have studied the se fimenta tion time in normal healthy non-gravid women who were upparently free from any four of infection. Linzentmeer gives as his findings a time of 200 to 350 minutes for the sedimentation to reach 18 millimeters. Grae gert considers any reading over 180 minutes as normal Flores (10) states that the normal hints are 186 to 240 minutes lastly Fined lander finds that the sedimentation time is between 600 to 1000 minutes. Our findings in normal women range from 132 to 370 minutes with a rate of 5 to 7 millimeters during the first hour.

In the early cases of pregnancy our results have been disappointing and from our find ings it must be concluded that the sedimenta tion test is not an accurate early method of diagnosis Fahraeus in his report holds that a definite diagnosis of prei nancy can be made during the first a months and states that the rate is always under 120 minutes. I inzen merey finds that the rate is under a a minutes only during the second half of pregnancy and later states that the test is not specific and of no value in establishing the diagnosis of pregnancy Guessez (20) Pewny (42) Vignes and Hermat (cr) Flores and others are all of the opinion that the test is not accurate until pregnancy has advanced so far as to make this procedure unnecessary

var

Clinic of the Michael Reese Hospital and were careful to exclude all cases which an peared to have any focu of infection such as infected tonsils infected or carious teeth sinus infections cholecy titis etc. After the twentieth week we obtained but one reading over 120 minutes and this same case was the only one under 10 millimeters in 1 hour. The average sedimentation time after the twen tieth week of pregnancy was 43 minutes with a sedimentation of a millimeters during the first hour Before the twentieth week the average sedimentation time was 87 minute with an average sedimentation of 14 mills meters during the first hour. These readings are rather low but we feel that this is due to the fact that unusual care was used in ev cluding all possible foci of infection

The average sedimentation time after the

questions arise as to the diagnosis of pregnancy and especially as to the differential diagnosis between pregnancy and growing, myomata the sedimentation test is of little valut. In cases of my omata we have found the averige sedimentation time to be 104 munites. This agrees with Molnar (36) Flores and

omata

In connection with the sedimentation time in pregnancy it is of interest to note that Fabrons (6) examined a series of cases during the primenstrial period and found in all of them a definite increase in the sedimentation rate. He concludes therefore that there must be an analogy between the preministrial period and pregnancy and that the blood of the premenstrial period must be of the same composition as the blood of the premenstrial.

In cases of threatened abortion the sedimentation test is of little significance. It is of great value however in cases of abortion in progress or incomplete abortion in the determination of the presence or absence of infection and it is in such cases that the test should be used.

Case 1 Ms A H age 50 years with last mense 6 weeks previous to admission entered the hospital complaining of vaginal bleeding for the part 2 days "Emperatur" vat too pulley on and the white blood cells 9 600. She did not have the appearance of being septic. The sedimentation time vas 50 minutes for 18 millimeters and 1 to mill illimeters and 1 to mill mitters and 1 to mill meters and 1 to mill cells had risen to 14 000 and the temperature to 10 millimeters.

Since Linzenment's dictum that any patient with a sedimentation time of less than 60 menutes is suffering from an acute in fection is accepted by all workers as being a correct one then it can readily be seen that the sedimentation test in this case showed the presence of an ixial microtion at least 24 hours before the leucocyte count or the tem perature and must threfore be more sen sitive and respond more rapidly. That this is so is sufficiented by the following case.

CASE 2 Mrs B K age 28 years para n n th t menses 6 yeeks p evious to adm sion to the ho pital complained of vaginal bleeding and cramps sedimentation time 7 minutes and 35 millimete a

be done in all cases before g3 necological lapa rotomies are performed. Friedlander empha sues the frequency with which latent infections are stirred up by operation and states that since he warts for the sedimentation time to reach a hours before operation he ha encountered no actue lighting up of a latent infection during the postoperative course that was not recognized before operation. Haselhorst operated on a enes of 200 cases with sedi-

In the above case on the third day the temperature and leucocyte count had remained stationary but the sedimentation time showed signs of improvement. This way borne out by the subsequent chinical course although on the eighth and fifteenth days with normal temperature the sedimentation time still showed an acute infective process. This case had a long and protected course and

We have studied such a series of cases of which the following will serve as typical illustrations

CANT, Mrs. B. H. was admitted to the ho putal complaining of distinction and uncertage and stensity. Temperature was 90,7 white blood cells 15 000 and there was marked lenderness in both admens. The sedimentation time was 18 n. as murates and 8 millimeters in one hour Laproton receased a salpingtis sistinuica nodosa with a few old adhesions.

tion test which will be discussed las-

tio

the presence of any acute infection

Case 4 Mrs M F age 22 years completed of the property of the presence of

n . .

pe under oo minutes developed temperatures of 100 4 degrees while only 16 pr cent of those whose sedimentation times were over oo minutes developed temperaturer of 1004. He also finds that a decrease in time can be determined before the fever develops and he emphasizes the fact that the firster the rite the more certain and the more virulent is the infection.

white blood ceas 15.4-2 a to a time v as 24 m nutes with 26 millimet rs in 1 hour A tube-original absects wa foul d on laps ofomy and the patient had a stormy and f binl convales expec

This case demonstrates the manner in which a case with a subacute or latent in

gre

is this true in those cases in which a question arises as to the presence or absence of a latent infection or to the differential diagnosis between pyosalpinx and ovarian costs re

vious case. In 1 in present Here the sedimentation rate was a more adelecate and a more accurate index of the presence of the infection and a better test of the virulence of this infection than the leucocyte count

as Friedlander Gepper Grand Mohar Hildebrandt (22) Rumpl (45) and Mohar (36) that a routine edimentation test should

The next cases both errors in pre oper ative diagnosis are especially instructive

Case 5 Mrs R C had complained of abdominal pain and a vaginal di charg for c months. The temperature was on 8 wnit blood cells 120 o and vaginally a large tender mass could be f It to the left and posteriorly The sedimentation rate was or

fection

(ASE 6 M R B age 2 yea complained of loss in weight and ab lom nal p in Ten perature as as 6 a hite blood ells r oco and the sedimenta tion time was 174 minutes and 6 mill meter in 1 hour Dictation by everal examine s read tally a small soit mass can be left in both ad væ The p op rative d agno 1 v as tuberculou sal p citi (?) Laparotomy sho ed no m l t le ovan's and uteru

In both of these cases the kucocyte counts and the physical findings pointed toward the presence of intective processes in the pelvis while the sedimentation tests ruled out any such infections. The latter was borne out by the operative findings

The following case illustrates the value of the sedimentation test as a mean of differentiating inflammator, adm val tumors from new growths

CASE 7 M E H age 30 v ar was admitted

I r in a hour I gan ity at g vi ms uld b felt in ther hlisith pl th ght on b ngf ly movable nlth lit bg in t th Douglas b g in t th Douglas hih a mill freline bl nd push d pagat the amphysi Lap r tomy although ntr I t d b th se lim ntatio test I ch hot dith pr farteut infetion to lon d libilat alpy alping with small ov tha

The sedimentation test 1 allo of great value from a prognostic point of view in ca es of up is whether puerperal postabortive or no toperative. It is more envitive and re pand more rapidly than does the leucocite count to increased virulence of the infection

and therefore shows any changes more rapidly than either the leucocyte or the tem perature curves

CASE R Mr R M primipara age 10 years as admitted to the ho pital a weeks no tpartum having been delivered in her home. Sh. complumed of lever las stude and pain along her right les. The lochia vas foul and there was a ma ked thrombo phlebits of the right leg. The patient had the ann arance of her grounte septic and 12 very

restle			d m	t 1 m
D	T m;	Wht blood H	M es	M II M
	0	too	7	35
5		foo		36
		400		ь
4	980	900	5	6

In this case it will be seen that on the fifth and seventh days the leucocyte count and the temperature remained about the same while the sedimentation time was steadily and rapidly increasing. On the ba is of this increase in time a good prognosis was given and the patient made a slow but steady re cos em

CONCLUSIONS

The sedimentation test is apparently of no value in the early diagno is of pregnancy 2 The sedimentation test is useful in de-

termining the presence or absence of infection in the body. With pelvic pathology a nega tive sedimentation test (a sedimentation time hours) conclusively rule, out nelvic infection

- 3 The rate of sedimentation is directly proportional to the virulence of the infection 4 The test is a further aid in determining the safe time for operation
- 5 The sedimentation test seem a more delicate prognostic index good or bad than either the leucocy te or temperature curve

REFERENCES

FM h md \ h & h 1 B SELLER I d W TL II M nhn md Whitest Nu h md Whah lv. 7

Ci s I Andostt R c

9 Id m Hamb Ph 5 Tagu

696

ORLEGERY O the new med when a lax 765

Id m with f Cyna k 922 cx 214

Idem with f Cyna k 93 cx u 421

Griss A Ann d ttel cc 19 3 1 53

Grissese P R med d 1 Sus R m 3) 184 Id m 1 ch f Cy ck 1875

zα O THE CEN LIN Y Zisch I G b rish Gyn k 4 PEWNY R. L. traffol f. Gv. L. 10 1 POTI E. Z. t. lbl f. Ch. 9 s. 1 2 8 Idem D. tsch. m. l. W. h. chr. 1 37 10 1 b 206 HASELING ST G D to h m d Wch chr 10 1 1: 105 xl | 1100 43 Haneseandr O M at ch f G buth ud 44 RIM F & Z traibl f G m & g xl 4 Sat mo \ Ztschr f kl Med ors xx Gyn k to 4 lx 75 Horvar 4 Mecle 45 mel Whach

43 2.3 AT SCIENACHER P a d VOCEL W Arch I GVD k IXIX 27 Q II THER JOHN V BUCh ber d Bl t Leip g 43 Stania gen W B h m Zische 10 cz HOER RADG M 40 STAL NGER & d FRI CH \ M d Klin to .5 20 r N W basch 03 241

So I i i m. Zi ch i d ges exp M d xxx \ 4 St Vio s d litera r Re i a g d g; e t d l't 1993 d M h h 9 4 m 2 6 27 9 u

DEPARTMENT OF TECHNIQUE

MANAGEMENT OF OCCIPITOPOSTERIOR POSITION¹

WITH SIECIAL PEFERENCE TO THE APPLICATION OF THE KJELLAND FORCEPS

BY SAMUFL J SCADRON M.D. I ACS. NEW YORK CITY

CCIPITOPOSTERIOR positions of the vertex occur o frequently and are some times associated with uch serious results that one ought not to make an apology for pre enting the management of the e ca es for con sideration

engaged in the transverse diameter in cases with normal pelvis and as labor advances the head changes into the oblique Contrary to some of the modern new theories the older textbooks teach us that the head always engages in the 1 m h f who h rea

Early in labor one frequently finds the head

pas age as we are guided by standard measure ments of the pelvis and the fetal head. In spite of this fact the mode of procedure in the man agement of obstetrical complications is vari d depending upon the opinions of the accoucheur

In persistent occipitoposterior positions it i axiomatic that a succes ful termination depends upon flexion and rotation of the head by maneuvers least dangerou to the life of the child and subsequent damage to the mother. In this paper I wish to corroborate the successful results obtained in these cases by the new method of application of the Lielland forceps

The occurrence of this complication according

ought to b the patien wall one abdominal

avoid pre ence of small irregular and nodular parts situated in the median line. Auscultation may sometimes be of aid for the heart sound are u ually heard toward the flank to which the back 1 directed

Vaginal examination reveal some of the characteristics which make the diagnosis positive The cervix is usually not taken up as the present ing part does not press firmly against the lower segment The location of the large and small fontanel can be easily felt. The sagittal suture can be felt to be across the oblique or transverse diameter. If labor is advanced it is sometimes

difficult to diagnose the variou sutures and the

tion takes place in a great percentage of these cases if the case is left to nature after a real onable test. It is evident that this malposition prolongs labor In 1 000 cases analyzed by I ice the aver age prolongation of labor in primiparæ was 4 hours and in multiparæ 11 hours

In pontaneou rotation the occiput comes down with the head well flexed meeting the reistance of the pelvic floor and with good uterine contraction pushes the head forward so that it turns from the oppo ite sacro-iliac synchondrosis to a position under the pubic arch

In another group of cases the head is not well flexed Instead of the anterior fontanel being opposite the acetabulum the frontal emmerce is opt o ite to it

ruptured membranes primary mertia slow progress in labor pains e pecially when referred 20 LETYDERETZ G Deutsch t h i kl M d to

CXXX 234



Id m Zisch f d ges exper V d xxv \ 14

d bst 9 3 W 1 4 lo schurz] Kh Wh ch 1924 m 276



the blades do not grasp the head when traction is made it therefore slips to the front. If one

sis is too great

A great many patients that have had difficult forceps deliveries with stillbirths come for subse quent examinations and antepartum care To our surprise we find that most of them have had a normal pelvis or only a moderate degree of pelvic contraction and there is no doubt but that the had results were attributable to the faulty application of the forceps

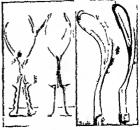
The construction of the Kielland forceps is

nary blades making extraction easier and safer (Fig r a)

- The concavity of the pelvic curve is on a line with the handles of the blades (Fig. 1 b)
 - 3 The lock sliding arrangement permits ac

the axis in utero (big 1 2)

succes tul in cases in which the ordinary forceps were difficult to handle or had failed with the kielland it is possible to get the good grap necessary if the normal mechanism is to effect complete delivery with the least danger to the child There



(left) Inother vs w of forc ps shown n Figu I's 3 V wsho ng th dfi c n the blades of the

The pressure however is reduced to a minimum With the ordinary forceps it is sometimes im possible to avoid having the blades grasp the neck and thereby cause compression which is especially dangerous for the child if there is a loop of cord around the neck

At first this method of application seems

forget that the kielland forceps have their limitations as in the contracted pelves with rigid soft parts in old primipara-

RULES FOR APPLICATION

To make a biparietal application when the sagittaf suture hes in the transverse diameter of the pelvis and the head is in the mid plane

I Have the patient in the lithotomy position on the edge of the table

2 Before applying the forcens be absolutely positive that your diagnosis is correct as to the situation of the head the sagittal suture and anterior and posterior tontantels

3 Hold the forceps in the direction which you wish them to assume in the pelvis with the con cavity of the pelvic curve toward the posterior fontanel The blade which hes anteriorly is the one which should first be applied between the symphysis and the head (One can also use the lock as a guide to point toward the position of the

men cases in which repeated unsuccessful at tempts with forcers had been made and on

2 When the head is engaged in the pelvi but still above the pine of the i chium

When the head I low down in the pelvi In the first class of ca es a great many authors tie have advised external manipulation of the anterior and po terior shoulder Per onally I have never succeeded and u ually leave these case to take their normal course with watchful waiting If however the membranes have ruptured the amniotic fluid has drained away and the cervix is not dilatable it is advisable to introduce a hydro tatic bag to aid dilatation of

In the econd group when the head i in the parturient canal and when the occiput remains per i tently po terior in pite of a long test given for spontaneou rotation there are several method advocated

the cervix and thus horten labor

r Leaving the cale to nature hoping for spontaneous rotation

2 Manual rotation of the head with external rotation of the shoulders. A recent maneuver

simple 3 Manual rotation with forceps extraction

4 Torce) extraction with the occuput remain ing in the costerior po itim

Podalic version

In the third group double application of forceps with its many modification recommended by Scanzoni has I een advi ed especially when the head 1 low dov n

With regard to leaving the persi tent occipito

posterior po ition to nature it i advisable to permit a reasonable test of labor by that I mean

to me it i criminal neglect to wait for e haustion of the mother or impending death of the child before interference i begun In reference to manual rotation one cannot always achieve

success with this maneuver alone without intra uterine manipulation harmful to the mother The question of version in occipitoposterior position especially when labor 1 well advanced with the head in mid plane is a momentous one for in the hands of the average obstetrician the procedure 1 so dangerous that it ought not to be advocated as a method of choice

Up to the present time the method which have rendered the best results in the treatment

results A word about the kjelland forceps before I attempt to advocate their u e A great many forcers have been invented within recent year and a great many changes in modification are continually being made but we must admit that the forceps universally accepted a the be t are tho e with the Tarmer axi -traction forceps. In pite of the fact the only advantage gained by this instrument) the question of traction. The

invent a new model with which the appn ation of forcers in mal a ositions of the head was simplified and ea y delivery made no able

The nev model forceps should not be applied in a contracted pelvis but only in cases in which

is necessary to make a pelvic application to the anterior and po terior diameter of the head and the blade come in contact with the forehead which cannot stand much pre ure the blade

therefore impo inte to to att During the application the anterior fontanel i pu hed forward to ard the symphy is becau e



lg 7 Bip tl ppl at with bead a tran of mit fipel

head 1 in the occupitoscral position with the forehead anterior you apply the blades in the same manner the application then is only an oblique one on the Istal head and after slight traction the head accommodate it ell in the trans-erie diameter of the pelvs. Finally proceed in ame manner as just described. This method to called the mersion method. In cases in which the head is impacted low down in the transver ediameter of the pelvs it is sometimes difficult



It 8 P tin I forc psafter rotat n

prophylactic epissotomy was performed in nearly all the cases. There was no fetal mortality or injury except the ordinary marks of the blades which soon disappeared after delivery. While

catted the gliding method

The excellent results with the k-jelland forceps in mal position of the vertex has already been report 11 mm

- h w to the
- ic no

p ter 10 in the Karmanner clinic in Alema the forceps are stringly advocated not only in occipit posterior jositions but all o in cales in which this complication occurs in a manor degree of contracted pelvis. They think that with the

nueriul succe s in the treatment of these ca es with the Ajelland forcers. We collected about 100 ct es in which we had most excellent uniform re ults. In all the ca es the mothers were dicharged in good physical condition with no injuries to the bladder or permeum. Of course

in with the ordinary forceps

I will cite the following difficult cases

CAE In mpra 43 ars fage a lel er d by
tex pr ntation VI mnts n cent mtr
texp I 6 ite ital 28 ght blg f feft

8 34 th h

p lately s



ILAP to n fftal small fontanel) Place two fingers of the hand

under the anterior cervical hp with the other hand grap the handle of the blade pass the forceps horizontally with the concavity of the fetal curve upward Now pass the blade up again t the head and the handle of the blade is lowered pass it upward between the head and cervix under the symphysis (Fig. 4) this is done slowly and gently as long as no rest tance is met until the middle round portion of the forceps In Hr ehlling

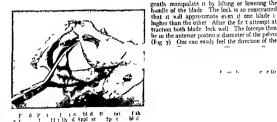


fee Rtt of t

After rotation the blade will slip up a little higher than at the time of introduction if it was not originally introduced high enough. After rotation the lock lies against the postvaginal wall. No assistant is needed to hold this blade in position The handle should rest in the center of the in

pelvis is contracted or the head impacted lov down In that event do not force the blade but

of the fetal head rotate about 90 degrees In



By LUCIUS E BURCH MD FACS NASHVILLE TENNESSEE

NJECTION of air into the peritoneal cavity for diagnostic purposes was first carried out in Europe in 1002

and diagnostic roentgenology and laid stress on the value of the method for obtaining good roent well n. of

testinal perforation could be diagnosed by the ray. The basi of this assertion was a case in the Johns Hopkins Hospital in which the diagnosis lay between a ruptured typhoid uleer or a miliary tuberculosis with intestinal involvement. A roentgenogram of the lungs was made which fortunately included the upper part of the abdomen. The picture showed the liver widely separated from the diaphragin by a collection of gas Operation revealed a gangrenous ruptured ty

as diagnostic procedure in sterility of the female Rubin has worked out a simple and safe tech inque has perfected the apparatus for measuring the amount and rapidity of the flow of the gas and called attention to the contra indication. Peterson in his articles on this subject gave

many valuable suggestions toward developing the finer details of the technique. Rubin states. Peterson had the happy thought of combining the transuterine with the transperitional method of producing artificial pneumoperitoneum and in

his hands the method has become established as valuable adjunct in gjnecological diagnosis. Pneumoperitoneum has been u ed with safety in a large series of case in a number of clinics in thi country without any untoward accidents. There are however certain contra indications that should be remembered otherwise pneumo peritoneum may result in serious consequences to the patient. I have di covered that it can be made almost paniless by a postural method which will

in the pregnancy cases a much thickened uterine wall with a distinct cavity and in this cavity a mass which we believe is a pathognomonic sign. Our series of cases 1 not sufficiently large to be absolutely pout; e. We to 1 ho.

then make a roentgen examination of the aldominal organs. Their paper published in the innals of Surgers in July 1939 gives a full his tory of the procedure and the technique that they used

I C Rubin of New York was the first to

show this picture not even large submucous fibroids

In the study of sterility it is the only accurate method of determining the patiency of the tubes and when these are occluded operations on the cervix are useles and other procedures meeting the demand of the case hould be carried out Peterson found that in a erres of 36 sterile women 30 or a little over 3/c concess of after inflation and that is of these went to full term the other 3 abouting. It is all of great value in that class of cases that present marked pelvic symptoms but the roentigenogram shows a normal uterus tubes

Ann Srg 8 J ly J Am. M Ass Sept mber

Read before h So h ru urg 1 Associa son so Ch les So th Ca I na Dec mber

u c s

i

ight of th hild w 7 po d c One can readily see that in these cases inter

this maneuver

The technique in this maneuver i very simple The necessary knowledge as to the direction of the fontanel and the proper placing of the sagittal sutures can certainly be easily acquired The

ADVANTAGES.

Before concluding I wish to review some of the advantages of these forceps over the ordinary forceps

t They are easy to apply in spite of the post tion of the head and the direction of the sagittal sutures no special experience in technique is required TL

head defeating nature s attempt It is necessary to introduce only two fingers instead of the whole hand as i sometimes

pres ure on the face neck or facial nerve as with

ordinary forceps 5 Better rotation is obtained because the forceps can be applied in one position

6 This application aid the normal mechani m m terminating labor

7 Less force is required

In conclusion I wish to state that while these forceps have many advantages over the old the range of indication should be no wider for them than for the ordinary blades

I deat o for terferen Th first t ge f labor h lasted 46 ho rs nd wa t c mpl te th p t ent w Th first t ge flabor h d shau ted It as a dry labo lit e pt pot mi posit

AP

that 60 cubic centimeters of gas is di placing the water in the vacuum. There should be four puil a tions to the minute or the passage of 420 cubic centimeters of carbon diovide in this period of time. The amount introduced depends on the size of the abdomen and therefore it ranges from 600 to 1200 cubic centimeters of gas. The mer curnal manometer should be carefully watched. The tubes are room is will run from 60 to 1200 and

710

are closed 12 attempts at one sitting with the manometer going to 200 should be carried out

Lig 3 P uniop it m h w gfet lb ne 3 eck

tion then of course the puncture should be made at one other site but this makes no difference except the pertioned cavity is a little further

ior 15 minutes following inflation by either the uterine or the abdominal route. The reason for this is easily understood, the gas naturally goes to the highest part of the peritoneal civily, which is the pelvis in either of the c po itions and in it.

uies in this posture then in a lit. A

allowed to get in the recumbent posture imme

initiated when there is an acute pelvic inflamma tion nor should inflation be tried when there is a bloody or purulent discharge from the uterus

touered punless by first injecting the skin and them the deeper parts with one half of one rerent solution of novocam. A spinal puncaire needle is used fir 1 it is pu heal through the skin to the fascia which 1 ca ily recognized by the rest stance and then at the next thus 11 will pass into the pertoneal castly. One naturally shinks that a cool of unit time gas be refugiated if it h

Lable uterine or abdominal tumors or errou circulatory changes. In such conditions a fittal result might be brought about by a sudden rearrangement of the abdominal organs and the upward pre-ure of the diaphragm with a badly acting or do ac d heart.

Large tumors do not make as good roent

OI

b on a caseing congram several weeks before the fetal heart can be heard. The depend on the time that the calcufication of the fetal bene takes place and the varies in individual cross.



Frilnumprit matakpri



ig 2 P mop nt um h c6 k p em c

and ovarie. It renders these poor neurasthemes much more hopeful and paves the way for the

2 The evamination is made by u e of the Bucky disphraem

examiner can determine the relation of a mass shadow to the normal pelvic organs. The Bucky diaphragm is used because it i the only method at our command that gives marked contrast

Bu an 4

the brim of the pelvi

Our technique with the Bucky draphragm 1 as follows

A 4/ to 6 inch back up is used depending on size of the patient with 40 milliamperes 5 sec onds always at a di tance of 25 inche

Carbon dioxide 1 now used instead of oxygen for making the inflation of the peritoneum It 1 rapidly absorbed and for this reason the procedure must be carried out in the \times ray room

and p m in order to remove any excessive se cretion from the vagina

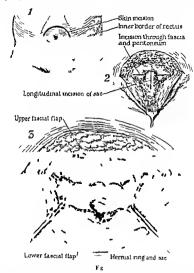
The necessity apparatus 1 a tank of carbon douted which may be obtained at any affirm stand a reducing gaure for the tank a Rubin a sphommeter attached to a mercural manometer a spinal puncture needle for puncture inflation of the abdomen and a keese Ultrama cannula perforated at the tip by several small apertures for the introduction of gis into the uterus for testing the patiency of the fallonian inbea and providing a preuniperstituctural that the study of the fallonian inbea and the study of the fallonian increases the fitted on the keyes Ultrama cannula to prevent the back flow of eas from the cervix.

A MODIFIED MAYO UMBILICAL HERNIOTOMY

By C A ROEDER M.D. FACS OMARA NEBR SLA

SINCE W. J. Mayof first described his operation for umbilical herma in 1898. It has been adopted by the vast majority of surgeons because of its simplicity and universal success. The

rificed and the transverse opening through the abdomnal wall closed by an overlapping of the incision. A modification of thi most sati factory operation 1 offered because of requests from pa



operation is based upon a proper conception of the regional anatomy and physics of the abdom inal wall. In this operation the umbilicus is sac M w J A 800

tients who preferred not to lose the umbilicus if possible. Two mothers of girls of 8 and 10 years re pectively refused to have the operations per formed if the umbilicus was to be removed and a

706

I feel that the following conclusions are war

ranted and conservative

I Inflation of the peritoneum by either the

abdominal or uterine route is perfectly safe in cases in which there are no contra indications

2 There is very little pain if the patient is

CONCLUSIONS

4 It is possible to diagnose with certainty pregnancy in the early weeks provided the pathog nomonic sign mentioned in the paper is shown in the roentremogram

possible

CLOSING ENDOMETRIUM IN CÆSAREAN SECTION

BY OLIVER C COY M.D. WASHINGTON

sewed Then why not close the uterine mucosa with a continuous fine-thromic suture? Then the wound through the uterine muculature can be wiped

í

minimum of infection. However the reports of these two disasters are increasing constantly in number

of the ime of sucultaring in

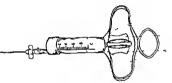
several executes a sections and believe it to be superior to the methods de cribed in most texts I The mucosa is closed with a continuous No. 1

chromic catgut

de toptions of the classic cresarean section the

the suture

Thus the muscle layer is sealed between sutured mucosa and sutured serosa



The ditted line dite full at no fin trum t

Rubber bands of the desired dimensions may be procured at any tationery supply house. In order to prepare the hand two short slits are

SUBMUCOSA DISSECTOR

THIS instrument was devised to do exact di section in those instances in which habit has led the operator to use the end of the calpel handle or scissors which instruments obviously are not uniform in size shape or degree of sharpness

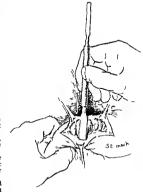
Point I (small end) is for use in splitting the bowel wall

The cleavage in this instance takes place in the loo est part of the submucosi ju t against the circular mu cular laser as here also occurs in the shding of coats. In protrision of the mu cous membrane when the bowel is sectioned Point 1 is de juned to break the ellipsers and without cutting and thus cau es the least homor have Concentual bylone stemost entress to the company of the protries of the control of the protries of the control of the control of the protries of the protries of the control of the protries of the

Other u es of the instrument. It may be u ed to lift the perioneum from any structure as in expo ing the gall ducts or ureter or in separating adhesion.

Point B (large end) is beseled and the logedge properly dulled is directed against leedge properly dulled is directed against leleather ble sul muco a and thus crape it clean in times of this use are (i) the boxing off of the palone phineter mucle in congenial palone tenosis (2) the cleaning of the gall bladder or her and connective tissue in cholecystectomy, and (3) the separation of the perin neum and blad ler from the uterus when directed again it the uterine mucle in hysterectomy.

bt t ure the proj dgec fd t so th t thy



s p b t n t ut th t ex (See Isolati : S bm cosa I text 1 S rger) S rg Cynec & Obst tre 2 9)



108

and its loss however negligible from a practical standpoint is a constant reminder to certain types of sensitive individual particularly if they are exposed in gymna iums bath houses etc These experiences led me to endeavor to modify the Vaso operation and to apply the modification whenever practicable particularly in young pa tients and in adults with small herniæ If the um bilical hernia i very large and has destroyed the outline of the umbilious and the abdominal wall is very fat my operation is useless and upsatis factory

TECHNIQUE

The illustrations describe the operation Only one half the usual area of fascia is denuded of fat

man returned to me I year after a succes ful Mayo umbilical hermotomy stating that he regretted cus just enough so that it is mistaken for a recur

rence to my kno ledge

A SIMPLE METHOD OF CONNECTING A GLASS STRINGE AND PLUNGER

B KOBERT CMMETT LARR M.D. CALS, MANAGORE MINASSO



If it is broken detached or mi laid it may be

plunger niav iaii 0 allu Many syringes of this type are supplied with a small chain which erves the jurpose of prevent ing these accidents. There are hovever many all glass syringes in u e to which the sifety chain is not applied. The chain i easily broken or de tached and not so cally replaced and many of them are unsatisfactory

pose of cleansing or sterilizing the elasti its o rubber band readily permits such vithdrawal



Fig.

eter of the dial one handle having a pointer indicating the degrees of motion and the other being attached to the dial. On the dial the degrees are numbered from o to 90 right and left from the center.

Therefore when the pointer stands at zero the joint 1 at right angles Estimation of motion 1 made as so many degrees flexion exten sion or fixation from a right angle

The device can be used on the elbows wrists knees or ankles right or left and on internal or external surfaces (Figs 2 3 4 5 and 6) When the estimation is being made the junction of the



Fig 6

two handles should always rest on the condyles of the humerus or femur on the styloid processes of the radius or ulna or on the malleoil of the ankle. The cla ps are easily adjusted to the limbs and held at any place along the handle with the aid of thumbs srews.

FLEXO EXTENSOMETER

By H EARLE CONWELL M D FARFIELD ALARAMA
Ch 1 S D 1 Cl & T an see C 1 I ad Rad d Comp y Emplyte Ho pt 1

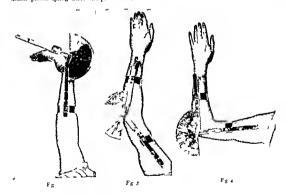
ТЧЕ:

of degrees of ankylosis in the joint and the progress of motion flexion or extension is very important

To get absolute record on such case I have found that the instrument which I deviced as described here is most efficient. It requires only a few seconds to make the determination with the feto-extensioneter and the absolute degrees of flevion and extension are given. When this record is made at every visit the doctor and patient have a concise and accurate history of the progress. In the severe cases of ankylosis patients should be allowed to u e this instrument fre quently during the day.

The outfit (Fig 1) consists of three sets of nickel plated spring metal clasps of different







THOMAS J WATKINS M D FACS 1863 1925

MEMOIRS

THOMAS J WATKINS MD FACS

This with the deepest repret that the Editorial Board announces the death on April 1 1923 of Dr. Thomas J. Watkins one of the founders of SURGERI GINECOLOGY AND OBSTERIES and a member of its editorial board from the beginning Apparently in perfect health he was dictating letter at his office when struck down. His death came from what was probably a cardiac angina

Born near Utica New York, in 1853, this master plastic surgeon spent his boyhood in hard manual labor upon the farm. Denied such holiday pleasures is fall to the lot of the average country youth his earlier years of life were devoted to unceasing daily toil and drudgery relieved when possible by winter months of study at a country school. Subsequently after hard arried preparatory education at Holland Latent Academy, and Adams Collegate In titute he borrowed funds sufficient to defry the expenses of 3 years work at the University of Vichigan. A medical digree was thereafter obtained at Bellevue Hospital Nederland (N. Y.) City Hospital St. Peter's Hospital of Brooklyn, and the Woman's Hospital he obtained valuable training under the direction of the late Thomas Add. Emmet

In 1889 Dr. Watkins moved to Chicago and in 1893 was married to Cathenne Crimin of Poughkeepse New York. He joined the staff of Northwestern University Vedical School at an early date and at the time of his death was chief of the department of gj necology in that institution. Numbered among his many numls are several who have attained emmence in the surgical world.

Dr Watkins was a mister of gi necological technique and posses ed unequaled skill in the art of plastic surgery. He was perhaps best known as the originator of the procedure which he termed the transposition operation popularly called by others the Witkins or Watkins Wertheim operation for cystocele and uterine prolapse. Elected to the American Gjinecological Society in 1896 he was honored with the presidency of that society in 1915 and was the recipient of many other honor. He was a founder of the American Collège of Surgeons.

Although it impossible to portray adequately the beautiful character of this gentle man who yesterday was in our midst that which has been thus far said would be but mockery without some added word. He spent a life of labor and unselfishness. He gave freely of himself and of he earnings to every cause which mented. He was generous in praise of others modest in demeanor alway gentle hindly true—a manly man who will be sorely missed.

ARTHUR H. CORTIS

in 1902. Within a few years the House of Delegates was well established in its present form. It his done and is doing for the medical profession a great work, for which it receives too little credit.

The Congress of American Physicians and Surgeons had its inception in 1886 National societies devoted to the specialties in medicine and surgery had been developed prayiously the American Ophthalmological Society as early as 1864 the American Otological Society in 1868 the American Neurological Associa tion in 1875. The American Surgical Asso. ciation was organized in 1880 by Samuel D Gross and other men of comparable attain ments of whom William W. Keen i the sole urvivor. These special societies were followed in the cour e of a few years by various others Each held its regular meetings at times suited to it elf. There was no interrelation among the organizations and each was uninformed as to the work the others were doing. It was realized by such men as Claudius H. Mastin. of Mobile Alabama and W. H. Carmalt professor of urgery at I ale that the existing routing of the special societies had a tendency to narrow the outlook of the I clions The human body is not like a machine the parts of which may be distributed to different work men for repair with sati factors re ults. It certed advisable that the special societies hould muct jointly at convenient intervals for open di cus ion of subjects interesting to all to develop a broader outlook

An organization of the national pecual sectice for the purpo e was proposed by Dr. Wastin in 1886 durine his presidings of the American Surgical V sociation at the eventh amount meeting, to be called The Congress of American I his icins and Surgions. It was determined that the Congress should in no was detract from the value of the American Metheal V sociation but that it should devote defect.

its attention to highly pecialized branches of

In 1887 the Congress of American Physician and Surgeons was organized and mut for the first time in Washington D C in September 1888 under the presidency of Dr John S Billings of Washington The organization included the eleven oldest special national medical societies the American Ophthal mological Society the American Otological Society the American Neurological Associa tion the American Gynecological Society the American Dermatological Association the American Laryngological Association the American Surgical Association the American Chmatological and Chinical Association the Association of American Physicians As ociation of Genito Urinary Surgeons and the American Orthopedic Association joint meetings of the societies thus banded the Congress of American I hysicians and Surgeons were to be held once every three year in Washington D C no society was to be admitted except on the unaumous vote of the Executive Committee which was composed of one delegate from each society. A number of pecial societies have been admitted since the organization of the Congres

May 5 and 6 of this year the thirty seventh year of the organization the thirteenth convocation of the Congress of American Physi cians and Surgeons is to be held in Washing ton The program for each meeting has been carried out as planned originally. The subject for di cussion this year will be. The Ductless to which contributions will be made Gland by the various pecial ocieties either in papers or in set di cussions which will take up one afternoon and evening of the niceting The remaining time will be taken up by separate meeting of the constituent societies for the trunsaction of their pecial work which will occupy three days May 4 5 and 6

EDITORIALS

SURGERY, GYNECOLOGY AND OBSTETRICS

TRA KIIV II MARTIN MD
MELE B KANAVEL MD

WILLIAM J MAYO MD

Ch I field to al Staff

VIAV 1025

CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS

THE American Medical Association was organized in May 1846 with Nathaniel Chapman of Pennsylvania as president. The first meeting of the association which I attended was held in St. Paul in 1882 when I was a medical student since then I have missed very few of the annual meetings.

At the meeting in St Paul Dr I L At lee of Lancaster Pennsulvania was elected president. In acknowledging this distinction Dr Atlee said that he considered the great honor which had come to him in the presidency of the American Medical Association as a delayed recognition of the service his brother had rendered to surgery Washington L Atlee the elder brother was the great leader in ovariotomy in this country following the pioneer Ephraim McDowell who performed the first ovariotomy in a farm home in the Kentucky mountains My father was stimu lated by the work of the Doctors Atlee and he performed ovariotomy in about fifty cases in the early days

In the eighties there developed a great schism in the American Medical Association The Medical Society of the State of New York admitted homeopaths to membership which led to the expulsion of this organization from the American Medical As ocation. A second state society was formed leading to a bitter local feud which lasted twenty years before the breach was healed

In the early years of the American Medical Association its conventions were carried on like ordinary town meetings or gatherings of county medical societies. There were no sections the papers being read in general vession and much time was given to medical politics. The American Medical organization in the period when it was possible for one man to know much of what was available in medical science. My father and men of his generation stood relatively much higher in all branches of known medicine in their day than it is possible for a man to stand in any one of the storolutes now.

Gradually it became recognized that men who were engaged in special work particularly teachers should have a means of exchanging views for the purpose of making progress and to effect this sections were established in the American Medical Association. The constant turmoil of medical politics interrupted the work, and the sections were at first only moderately successful.

ical Association finally came to represent the entire profession. Davis in 1901 proposed the establishment of a House of Delegates on the basis of representation, which was effected EDITORIALS 713

treatment of adolescent gotter but failur, to cure colloid gotter by the idministration of odine or thyroxin does not by any means indicate surgical excision. Better far to do nothing than to remote a highly important and essential gland merely because it is en larged and happens to be near the surface of the body. One speculates as to what would be the fate of the adrenals the thyraus and the pineal were they more accessible.

The thyroid of a developing girl can not be resected with the same impunity as is the case in the removal of her appendix the dilatation of her uterus or the shortening of her round ligaments. In the long run such procedures performed often on questionable indications may produce no great harm even if in the given instance they accomplish no good. This situation does not however ap pix to resection of the thyroid gland.

The prominence given in the past few years to the subject of toxic goiter the great preva

lence of neurocirculatory conditions especially in girls at the stage of adolescence the fre quent occurrence of a sight degree of thyroid enlargement in such individuals and to a certain extent the recent throwing upon the market of certain cheap and often highly un reliable appiratus for the alleged determination of basal metabolic rates have all combined to make the diagnosis of hyperthy roid in in the case of the adolescent colloid far too common

That the surgeon should always feel that he will artually help his patient when he operates upon heris of course a simple academic prop osition. It should however be carried beyond this for with very few exceptions the surgeon should be able to give his patient most positive assurance that she will be cured or at least most positively and definitely benefited—in aphon in which we should keep more care fully in mind when dealing with adolescent goiter. Harond L. Foss

The Congress of American Physicians and Surgeons has a great function to perform mea ordinating and sanctioning the best of the vast amount of new knowledge so constantly being presented to the medical profession.

WILLIAM I MANO

THE TREATMENT OF ADOLES-CENT GOITER

THERE is nothing more to be deplored than the surgical operation performed unnecessarily. It is of cour e a well known fact that operations for which there are no actual indications are being performed daily operations which do nothing beyond withdrawing something from the pritent's store of health a store which is often small enough.

As each new disease becomes better under stood it becomes the subject of exploitation at the hand of all the cultists in turn and un fortunately often at the hands of the regular physician particularly the specialist whose enthusiasm rather than lack of conscience occasionally leads him far afield from the realm of rational therapeutics. Thus the honors have been borne respectively by the piosed stomach movable kidney incompetent ileocreal valve retroverted uterus chrone appendix atomic colon and each of a multiplicity of other pathological vagaries even more spurious

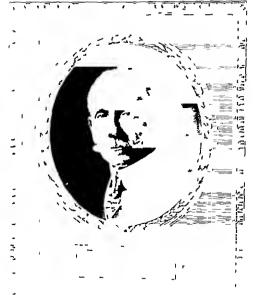
With the recent interest aroused in the medical profession over the subject of endo crinology (endocriminalology — Marine) there his been an extraordinary development of our knowledge of the physiology indipathology of the ductless glands especially of the thyroid with as with all new and especially complex questions a corresponding extraor dinary distortion of the actual facts and in ome quarters with a hopeles ly imperfect understanding of the subject

A lack of unanimity of opinion regarding the treatment of four goiter is not perhaps to be wondered at but with the results of the tireless researches of such workers as Plum mer Marine C H Mavo and Crile at our disposal it would eem that there should be a more perfect crystallization of opinions is to the treatment of the colloid type of adolescence

Such a lack of unanimity apparently does exist the most unfortunate result of which is the lamentable vogue now at its peak of thyroidectomizing every young girl who pos sesses a colloid goiter The surgeon who routinely advises thyroidectomy in cases of this type and such advice is being given daily would do nell to pause until he has a firmer grasp of the subject of the thyroid and its physiology Rarely and then only when adenomata are found or the gland is very large and has not been reduced by less formidable means or is accompanied by toruc symptoms should these guls become the nationts of the surgeon. To remove the usual adolescent colloid thyroidafter all it is a mistake to call them goiters merely because it i hypertrophicd is as if lorical as it would be to exert a lactating breast because it is enlarged

There are many sections of our country where the iodine content of the water supply a especially low in thessections over 30 percent of the adolescent girls present a smooth symmetrical enlargement of the thyroid In such sections there has been an appalling number of thyroidectomics operations which do not aid the patient but which subject her to needless surgery with tax accompanying ho pitalization and whichin many instances change her from a comparatively normal girl to a chrome sufferer from the effects of thyroid insufficiency.

The brilliant re ults obtained by the proneers Marine and Kimball following the ad ministration of jodine in goiter prophylaxis have not unfortunately been paralleled in the



MASTER SURGEONS OF AMERICA

DUDLEY PETER ALLEY

MEN who achieve distinction achieve it along widely diverse paths Some as a result of a single stroke of genius cale the heights of fame Others as the result of long years of effort along one or a few closely related lines make discoveries of great significance in their chosen field others as the result of unusual versatility are able to place the impre s of their personalities upon diverse field achieving distinction in each

In the last group hould be placed Dudler Peter Illen who was at once a surgeon whose abilities is such brought to him the recognition of his fellows as cypre sed in his election as president of the Ohio State Medical A occation and of the American Surgical Association and his appointment as an honorary fellow of the I hiladelphia Academy of Surgery and of the American College of Surgeons a connot seur of the arts, whose unusual knowledge of the graphic arts in particular has been memorialized in the Cleveland Museum of Art and in the beautiful Mu cum in Oberlin which bears his name, a literateur with a special ized knowledge of the literature pertaining to his chosen profe sion, a knowledge which found its chief expression in the Cleveland Medical Library and will be memorialized by the new building which a to bear he name and an organizer as evidenced repeatedly throughout the long period of his connection with the Medical School of Western Reserve University and with Lakeside Hospital

Dudley I cter Allen was born in Kinsman at the original family home tead in the We tern I eserve on March a 1852 but he youth was spent in the town of Oberlin where he pa sed through Oberlin Coffege in his preparation for the profe ion which we may assume was cho en more or less as a matter of course because of the family background. We are told by the e who knew him well that in his undergraduate days he was not e pecially studious and showed no par

among his clas mates. Even during his student days the versit is his outstanding characteri tie was evidenced and while pursuing his medical studies he was already making a special study of the hi tory of art and beginning a collection of etching and engravings

Just what led him to be a surgeon rather than an internist I do not know but it seems to have been an unswerving determination one from which he never wavered. It is possible that in addition to the opportunities for study in the great surncalchimes of the continent a desire to study the treasures of art in the museums of Europe may have been a lure which drew him to Europe upon the completion of his medical course in Harvard and of his year of residency in the Mas a chusetts General Hospital. However that may be both in his vocation and in his avocation he gained immeasurably from the postgraduate years spent abroad and when he came to Cleveland in 1833 to begin the active practice of his profession it was not surprising that with the equipment gained from his prolonged studies added to his natural abilities he soon became marked among his fellows.

In his surgical career here perhaps nothing is more characteristic of the singleness of purpose of the man as far as his profession was concerned than his preference to retain a minor teaching position in surgery in the medical school until the chair of surgery was tendered him rather than at a far earlier date to accept a promotion to the chair of surgerology.

For brief successive periods he served on the staffs of the Cleveland City and of St Vincent's Charity Hospital and in 1886 went to Lakeside Hospital where he served continuously until his resignation in 1910. Throughout this period although never a prolific writer he was an occasional contributor to medical journuls his articles covering a wide diversity of subjects for he was in no sense a surgical specialist. He was an excellent teacher and had the gift of pre enting clearly and concrely salient clinical and technical points.

Dr Deaver has well summed up the outstanding professional characteristics of Dr Allen

Doctor Alien's standing in the surgical world must be judged by his ability as a hospital organizer as a teacher of surgery an operator and by the inspiration of his personal contact. His contributions to medical literature consisted chiefly in addre, es and articles for journals inspirating articles with which we are familiar and which treat of a wide range of subjects but especially in the domain of abdominal surgery. I rollife contribution to surgical literature is not a characteristic of the class of surgerior of which Doctor Allen was a leader the essentially practical man. His several writings invariably deal with the subject from the viewpoint of the chinician. As a successful operator he was naturally interested in the development of the technical side of his art rather than of the theory, and not a few of his literary efforts deal with anaesthesia assepsis and



CORRESPONDENCE

THE TREATMENT OF BRAIN ABSCESS BY UNROOLING AND TEMPORARY HERNIATION OF ABSCESS CAVITY WITH THE AVOIDANCE OF USUAL DRAINAGE METHODS

To the Editor The article by Joseph C J King on the treatment of brain abscess by urroofing and

ment usual for sinuses other than cerebral was breadth) of the cavity by suitable incisions in the

breadth) of the cavity by suitable incisions in the roof of the cavity may prove an efficient substitute for excision of the roof of the abscess

C Hamiton West ford MRCS IRCP Ply m th E gla d

ERRORS IN DIAGNOSIS IN FIVE HUNDRED LAPAROTOMIES A CORRECTION

7011 in 500 L 1975 1 STITRICS the conc chron c appendicitis were corroborated by a follow up record The percentage of cures was 75 per cent instead of 0.75 per cent

R M HARBIN M D

Rom Ceo gia

It is not often that it is given to a man to achieve almost as much recognition in his avocation as in his vocation but that was the happy lot of the subject of this sketch. Re-igning from his practice while still it was expected that many years of usefulness remained to him Dr. Allen turned his devoted interest to the support of two institutions in Cleveland—the Museum of Art and the Cleveland Medical Library. A journey around the world gave him the opporturity for extending, his knowledge of art and enlarging his private collection and upon his return lie became a trustee of the Cleveland Museum of Art and bore a large share in the extension of its activities. His interest in music claimed also a share of his attention. In particular he was actively, interested in the promotion of the interests of the Medical Library. Association of which he was the president from 1903 to 1906. It is principally due to his efforts and to his gifts that the Cleveland Medical Library has the distinction of being one of the important medical hibraries in the country.

In the midst of these activities while his finends and co-workers were looking forward to many fruitful years of service to the community Dr. Allen died ud denly of pneumonia in New York City on January 6 1015 leaving a permanent impress upon the profe stonal the artistic and the social hie of the community in which he had made his home for their; three years Gronce W Crite

the factor of anamia in successive readings on a g ven case

who have studied this angle of the problem ignore urethrocele. It is b cau e we have failed to correct

on of er he hich

comes down by force and the head which is Iriven down by contractions. It seems to me a tear is

about it DR RAIPH Rris (clo ir g the di cussion) Nothing 4 10 2 1 11

ι

the cause being found in the protracted overstretch ing of the lastic fibers which never returned to nor mal In the effort to save a perineal boly which i relati els unimportant as far as support is concerne i we have d stroyed the good elastic fbers of the

1 l t DR I POEDERLEIN I was e pecially interested in the way in which Dr Watkins described the

acute

SHOUNDS, OF THE FEMALE URETHRA

De Thomas J Waters pres nted a paper on I rolap c of the Female Litethra (see p 687)

DISCLSSION

DR W C DANFORTH I think we agree with Dr

to notice quit frequently during labor that the blad ler is loosened an I insert I lover lown in the cervit a d con equently we have a lower in crition

greater nju j than a nece a v litise sa to di pos of the c n litt n by a nils making pro e on the er ix lu a 1 ii at whi h tim it ill l por r the heal in cret cupy it normal p ition The onitins it nin multipra let will the while pig 1 ib u the number of ases f 1 ric wh h f ll 2 r 2 m nth after l livery may I liming he l

DE VII CIRTE There are two facts buch

ge tiv ar a sequel of protract of l bers. The sults a re very good I confess I ne er del any

s sat on and co sequently has f stores. It is very e ident from De Watkin if grams that the trans position operation if properly done is a success be

mak th test

The condisthic run lis fr 1 ntly a oc ate i with sigging fith blad ir nd the upper ur th a It is probabl that nearly all exe pt those o-c fled caruncl which we find in connection with g morrheeal infects n a secondary to exstocele and

t u ul operation

TRANSACTIONS OF SOCIETIES

CHICAGO GINICOLOGICAL SOCIETY

REGILAR MELTING HELD JANUARY 16 1925 DR CARRY CULBERTSON PRESIDENCE

THE SEDIMENTATION TESTS IN OBSTETRICS

Das Joseph L. Baer and Ralph Rri revi a paper discussing the sedimentation tests in obstet 1 s and genecology (see p. 691)

Discussion

DR JOSEPH I BARR This work followed th

coming months to increase our own series to a point where we will be free to draw our own conclusions Dr. Warkins Hav there be n any reports re

wound send by priduits into the looks steam

leucocyt count
De Rudden Holmes Have you taken into

.

le n asks we spartly ar ver d to the paper the leucocyte counts and the edimentation readings

tween tale ted and non infe ted cases and in puer

١

t

DR THOMAS J WATKING There are two points I

tention of the bladder reported as naving acute in

at least 8 or 10 ounces

Much as we dislike to admit the occurrence of

Again there is the question of instillation after

trouble is reheved

REPORT OF A CASE OF DISTOCIA DUE TO RICOP MORTIS OF THE FETUS IN UTERO DR C P BAUER This was a patient of Dr

lower quadrant taken at 15 minute intervals from 6 pm untils 0.5 pm at which time it was reported that beart tones could no loner be heard. The heart tones had varied from 150 150. It 10 clock the membranes ruptur d spontaneously. There was a great deal of meconium in the liquor armu. At 2 10 there was complete dilatation and forceps were applied. There was a good deal of difficulty in bringing the heal from mid faine to the pelvore foor and although an epi oldring has done it was for and although an epi oldring has done it was

DR MARKT COIN WIDE

u actus weighed 7 p unds. Its measure merts tere n no way abnormal. The measurements of the mother 5 pelvis were—spi es 26 and crests 28 mtb 2 Baudelocque of 10.

DISCUSSION

DR IRVING F STEEN This case is reported to

neces we realize from expenence that there is a residue. We then pass a catheter once each day as long as a notable amount of urne is obtainable. This may be more than I oun e

t

DR MARE GOLDSTINE II a nati at after her

until she has n. seed the child bernag renod? DR Arroys Bacon I would like to ask two questions In the postnatal ching at the Cool

DE OF U. It IS A VOULTABOLLE TO ASK WHILE & might recomm a lin the treatment in the e cases

taught that the prothes in a normal soman forms a consideral le curve aroun I the symphysis that when

tears occur th muscular cout of the urethral comes much horter because the urethra instead of going

the danger of cy tocele

Dr Reis discus ion of the etiol gy of ureth orel interests me greatly I believe th t excessive molility of the mucous membrane usually is subsequent to the prol pe

De Arrie e H Curris read a paper of this

RESIDUAL URINE IN WOMEN title (see p 6801

DISCUSSION

Da 11 O Joves In the last 3 year we have had 15 cases in which the L bor 1 as 1 ng drawn out Re perted catheterization were required f r the fir t

the urethra

probably the mo t important factor. Lately how ev r it has occurred to the that perlaps a certain amount of urine pulls the head out of the was as it

> hours and then hen lunt ry urmation cturns the c theters tion : nimu d until the bladder emp to set ell completely

oman had a lar exstorele the tascia was ex tremely thin

١

DR THOMAS | WATER'S There are two points I

at least 8 or 10 ounces

it least 8 or 10 ounces Much as we dislike to admit the occurrence of

Again, there is the question of instillation after

temble is reheard

REPORT OF A CASE OF DISTOCIA DUE TO

DR C P Batter. This was a patient of Dr Irving F Stein. The patient was a para 1 whose last period was February 27 1024. She felt queckening on July 12 and was estimated to be due December 4. She came to the Michael Reese hospital December 21 in Jabor. The heart tones were audible in the left.

a mousers reivis w re-spines 26 and crests 28 with a Baudelocque of 10

DISCUSSION

DR IRVING F STEIN. This case is reported to learn whether the other obstetricians in the Society have seen this condition of dystocia du 10 m

e then pass a catheter once each day a i g as a notable amount of unne is obtainable. This may be more than 1 ounce

ULL III 1901

There was one English and one German citation

following conclusions may be drawn concerning this

condition

r That a baby may be born in a state of rig r
mortis and that rigor mortis may develop in the
uterus

from 260 to 120 and after about 2 or 3 hours ne

alive and the heart tones good at that time. The day before yeste day the membranes ruptured at a o clock in the afternoon. We administered a sedatic

hours for rigor mortis to develop and that rigor

bleed ng rather profusely On rectal examination I

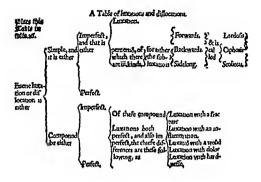
she refused

REPORT OF TWO CASES OF PLACENTA FRIVIA WITH LOW INSERTION OF THE CORD

the hospital at once The heart tone were audible when I first saw her Her pulse c uld not be counted

portion of the pl centa ll the he d h i c me do a lest it would have hill d the baby. Today her temperature as 100 and hernogl b n b5 and the r d cells 3000 00. She had n ble dt g





```
A Tablecontinuog the differences of findaged boots.
Ware Min
                                                               Stalles of betiber
Table in
folio.er.
                           and they are
             Supple frat buce, that is
            cure of the
             bone of
             which there h. Rufts or fillures called Schidad
             are ni kinds, (a broken in meny finall preces, named Alphiddon.
Fuerie frace that it,
oure of the
                          Sicknes (s Wound.
banch d-
                                                   ( Albertais nameth other diff.
                          as a frac Gangrena,
ther
                           nte with inflimation leners of Fractures as a frag-
                                                   are of the lawer, a fracture of
                                    Ertobelas.
                                     intiperatues the note afrafture in Cratio.
              Compused
                                                   a fracture of the fpms of the
backe, a fracture of the foliales.
             and loyned (
with it both.
                                    lau.
                                                   Se Which be no true differen-
                                                   ces of fractures, but exher no
                           Artica e Indine.
                                                   unt the part effetted.
```

THE SURGEON'S LIBRARY

OLD MASTERPIECES IN SURGERY

BY MUTRED I BROWN MID FACS ON MAN YEBRASIA

BY LLTRED 3 BROWN WID FREE CAME CONTROL OF STANCHING flux of

with a new way of stanching flux of bloud without cauterising yrons by a poulder designed by Maister

NDER the above title the result of Gales hie work appeared in 1536. In the same

1 of et o der p bactans and is one of the lew

in injected gunshot wounds gunpor der was not the etiological factor. Gale does not me ton Paré though he does mention many of the older authors. It is interesting to succulate whether three great

independ ntl

Thom Gale was born in London n 1507 He studied under Richard Ferris and John Field two

t e Battle of M ntr uil in 1544. Later he entered the army of Phill p II of Sp n and went through the Siege of St Quentin in 1557. He thus had expetience in military su gery for approximately fifteen years before he returned to London a d reentered pr vate practice in 1550.

According to the introduction Gale had written the Institution and Enchi idion or at least sta ted them when he was called a vay to the wars He writes Wherefore I dyd set pen to pape and Facult Certain Worke of that famous Chirur goon Wai ter John Vigo all printed in English

Chrugenewho epef tight ii the R imes dok w Who ele m d m with dig n dooth mak it shoe d sh w

I our e sthith nityet ppe dain mit obscure Re Throigh d ky cloud sof gnor that one e doth

despise

B tmang enowith mallice gr t of M mus d h s sect

4 mot le Gale d th bl w aw e those cloud d

them det 1

Gale became Master of the Barber Surgeons Company in 1561-and died in London in 1587

REVIEWS OF NEW BOOKS

BY CEORGE GLLLHORN MD FACS ST LOTIS MISSOURI

D1 calling attention to a ner book on thera

nous persons have floated their names down the river of time upon dinner pills the principal is grethent of which is aloes there is Chapman's durince pill. Hall's dinner pill and Cole's dinner pill and finally Lady Webster's dinner pill which has intrigued my imagnation for many years. I have

ter headings in the book unil r discu sion) mu t be acquired and once acquired must be k pt up to date by all of us whatever our special line of

piratory as term etc. I am not comp tent to judge, whether this second part is on a par with the best literature, on these subjects—though it seems to mee to be the case—but I am quite certain that the first pa I is equal to anything I have ever real along the line of general therapeutes II I my.

mation an outstanding no it in among moderal textitions. All subjet is overed are I e hold in a most licited fa him and everywhere the relation of therap uties to physiology and path logs are stressed. All methods of thiray after price cliur are given a cleart and immitted; that a person who has never bested of them could do them from the desception. The bitorical mid-I of approach adds zet to the study and satisfic the interest cannot by granting how the ad-thirt m is first cannot by granting how the ad-thirt m is first.

All these points I loubt not may be found in other prom n nt w rks. Wh't distingui hes Cl n denings book is hi use of and j j in beautiful langua e the wid cuttur I lackground of the

nature of their physique they certain pathological tendencies Down at the

looking up they is the births and marriages and stock did dends and Mozart and bridg and Dickens and the interest was and

1

reader will be impatient to u cate in the book for himself and be will be grateful to the author as I am to the unalloyed pleasure he has green us while in reasing unk onledge

Mon Mars us Theath my B Low Cle d g M p h h Ch pters Special'S bjects by h was Coll bor was S Low Th C V Mosb C mpa y 9 4 ^

close yet its value for the further development of our specialty remains und mmed. Mattin has out lived the scriptural three score and ten. May he remain among us much much longer to see the fruits of his labors bear a nch harvest!

EVERY new edition of DeLees work? deepens in the reader the conviction that this book is splendully adapted to the teaching and learning of obstetrics. Its excellent feature have been stressed in previous reviews. The present fourth edition is

11 jeiso ia 19 will illul many memories re awakened by these remini cences. But even with out a personal acquaintance this little book afford an intensely interesting survey of modern gyne colory subsectively colored to be sure but never between hospital and home ob termes and is the largest number of boths; conducted by the general practitioner it; to the needs of the little the book is devoted primarily. For this reach, a strongly conservative attitude is observed through out vatchful and armed expectancy is wiged emphatically, and the indication for conservan see tion forceps version puttern and bag didtors

heim and of Warnekros. One may admire the book grathy nithout subscribing to all of the au hors yiews. One may question for example, his advice

and m ny ma y others not to mention the leaders old and young in Germany and Au tria. It is clear that such an intercourse must have p duced re ciprocal effects. His exten ive trivels led Martin twic t America and it is both instructive ind amuling to see ours lives as others see us.

The 1 s vely surgical era of gynecology of which Varius was an emit end expo end has eached its work by the second of the second

prophylactic forcep or doubt his behief in the efficacy of the so called Pro hot nix, diet in contracted pelvis. The final appraial lowever vill remai unaltered that this book is a credit to American obstetincial lerature.

The P ct to P crice O ct by Joseph B DeLet AM M D hed Philad lipits d Lo de W B d Compa y g

AMERICAN COLLEGE OF SURGEONS

THE STUDY OF END-RESULTS IN HOSPITALS!

BY WIBEL SEACRANE WID S ATTER BASIN GROV Ob triesan Gene I Hose I

ROPEPLY to discuss end re ults in ob-

At our stiff meetings we presented our findings He have been fortunate in having well trained men as internes and when these young men recorded progress by rectal examinations I think ome of our older men were a little ashamed to be

For the past 4 years we have been attempting to stan lardize our ho nital work. The first year we had very little co-ontration from the rank and file of doctors I ut each year there has been less trouble in getting records made out until now I may say that doctors patronizing the Seattle General Ho pital have come to recognize their responsibility toward record keeping and are cheerfully co-operating with those in charge of the charts

The result of our reviewing each month the work of the obstetrical department has been to

show us that we were having too many cases of an operati e nature and too many cases which were running elevated temperatures. We assumed that the technique on the obstetrical floor was probably at fault for the morbidity. We made a most careful tudy of the technique in the de livery room and the sub equent nursing care. We were fortunate in having for a short time as charge nur e a woman who had trained under Dr De Lee and later another who took her training at Sloan Maternity For the past 2 word to who

tient and the regular 10 minute preparation of hands of the attending No interne makes vagi nal examinations

There is much room for improvement in our work but we feel that we have progressed

TABLE I -SEATTLE GENERAL HOSPITAL OBSTETRICAL DEPARTMENT

Vor/colonium;	,	9 - 3		9 4		Fik		114	
		₽,	-	Per	_	Per	-	P	
Cases	44	_	-	_	000		59		
Fitte	81	37	6		_	_		\equiv	
Carsare		7	- 5		- 8	- 8			
1 a	1.4								
Ep la mes	6		53	1					
Morbid			97	3				_	
R hard			_	8.3	5.	\$. 5		

Table I gives the report of the obstetr cal work done over a two year period. Statistics for each year are given epartiely so that the work of the b ompared This past year

It m , eem that our mor suny by a

rather than rectal examinations were the time very high. We have reported every temperature Bead tith W hing Og Bt bC ! jobu Sectio 1 Meeting 1th America Cill ! Sur

of 100 4 degrees or above If as man, do we do not count the cases of less than 24 bours elevation and also eliminate systemic infections not associated with the generative tract our morbid ity would drop from 2 per cent to 8 52 per cent for the last 12 months. Ihis would be lower than the morbidity of 212 per cent reported by John ton and Sidall for Johns Hopkins for the veats 1018 7 not and 1220.

Polal reports a morbidity of 5 9 per cent in his last 1 000 cases but he uses not degrees F tem perature for the dividing line so our figures are not comparable. However we can well afford to meditate on the small number of his forceps cases I think there can be no question that we have a great many more instrument cases than we should have

TABLE II -FORCEPS CASES 1923-24

_			->-0 - •
Type	N	Id t	La 13
11 1	•	M t nal h P inc xo M tr l Hydr mmos	b td # 3 d a s
ма	5	U un t 8 I to po t 8 Ai un gheal Poo do f hild Fac p Filt d pel us Lag h D p T b g od pa 3	N tdg 5 ddg 5 3dd 4
Low	33	N p t Ute t M 1 uffi C tra d pelvis 1 P po to M m 1 b M t m 1 b b cut 1, g 1 talb	N.

T 11 T

Table III shows a rather interesting fact. Four doctors applied over 50 per cent of all the forceps although there are about 75 men bringing obsetterial exacts to the hospital. This table shows the number of cases that each of these four men brought to the hospital and the percentage of forceps cases in their respective practice at the hospital. With this group of rather radical men eliminated the percentage for the rest of the doctors falls to 9.7 pp cent.

TABLE IV -- MORBIDITY 434 CASES 1023-24

	-MOKBIDITY	43	4 CASES 1923-24
	All T mperat		4
first 4	Dur I th	4	During m th 4
	4 se	_	6 cases
Et l gy	Et 1 gy		E 1 gy
N rm I R so (?)	Ut was t to t b pto Bon h Abtorpt f blood E ton t E g g d b ts R t d loch C tend ppl PM b Ce-a	5 3 5	Unk wn Es ed b Es ed b R im dloch S bun l t P un l w und mice top t m harm A is I vi pak d R t d m b S p marma R p to yind b S p to yind b Cana e t S p de lief in pe

Table IV is a further study of our morbidity. Once more I want to say that we have reported here every case where the temperature has reached 1004 degrees. We have taken this arbitrary temperature because it is used largely an

type at a quate rare. The large number of second degree lacerations noted are due for the most part to the epi iotomies performed.

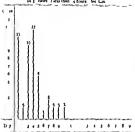
TABLE III -A STUDY OF FORCEPS CASES 1923-24

	C se	F p	P ent
Docto A		7	58 3
Dorto B	5	7	-3-3
Dot C			
Docto D		_	6 0
All tò rs	- 6		- · · · -

a du temperatures in columns 1 and 2. In

explanation We accept normal postpartum





teaction as an explanation for the elevation with in 24 hours of delivers. We are not surprised even when our Staff re-orts to that old taboo engon ed breasts to explain this sudden rie and fall if temperature or the second or third day after labor

TABLE VI -MOPTALITY

.	N of	160	M resi des ha	questp t	pors
,	- 44				_
030					9
T tai	8	ð		6	
I ex then			_		1 5

Table VI gives our mortality record In z years we have had one maternal death. This woman who died of sensi had been in labor a days before a physician was called Her hu band and a chiropractor had attempted to deliver her The baby was presenting by the shoulder with an

tears

TABLE VII -- MORTALITY 1021-24

- harmon	وحبو	Control of the state of the sta
Death	A 5	C use
31 t mal		P pe l'infec so Husba d' temptot de la erg
1 fant		4 From ure-6 to 7 mon b From ph local M nation y
	1	6 M rated.

we have eight infants for whom our lack of skill is probably more or less responsible for

their stillbirths In closing I want to resterate that I think our record show that we are doing better work. The publication of our records and the mevitable comment of our colleagues will no doubt sumu late us to further improvement

REFERENCES

POLAK Am J Obst 192 P 37
I STON and Smalt. Am J Obst 92 P 645 At e CH Am. J Ob t 9 J P 574
DeLee Obst 1 1 al Aldreal Seres 19 3 DeLee Obst t (Ddito sh t)

CLINICAL CONGRESS OF AMERICAN COLLEGE OF SURGEONS

CHARLES H MAYO Rochester Presul nt

TOWN D. ELLIOTT

RUDOLPH MATAS New Orl ans President Elec-

AURERT I OCHSNER Chicago Treasurer PRINTIN H MARTIN Chicago Director General

DHILADELPHIA COMMITTEE ON ARRANG EMENTS

Executive Committee

UNITED T SHOPMALED

CHARLES F NASSAU Chairman WARREN B DAVIS Secretary J E SWEET FLOYD E LEENE BROOKE M ANSPACH LOUIS H CLERE FIREIDING O LEWIS DEFOREST P WILLARD GEORGE P MULLER

Hospital and Clinical Committee E L ELIASON J D ELLIOIT J STEWART RODMAN FLOYD E KEENE L G ALEXANDER F J KLOPP A P C ASHHURST WAYNE W BABCOCK J T SCHELL I M ELIZE J H BALDWIN (ATHABING MACPADIANE SAMUEL MCCLARY III T TURNER THOMAS STEPHEN E TRACY Moses Beitrend ARTHUR HARTLEY FAUL M MECRAY J L VANTINE ROBERT H IVY Crorge I MULLER Hubley I Owen I B Bince J F X JONES JOHN H JOPSON A P APEGAN HENRY P BROWN IR RAISTON WELLS G M DOPPANCE W E PARKE 1 D WHITING

THE 1925 CLINICAL CONGRESS IN PHILADELPHIA

inclus e unit will be the tourth session of the Congress held in that city previous meeting having been held there in torr 1016 and 1021

stetrics orthopedics urology surgery of the eye ear nose throat and mouth An important fea ture of the program will const t of a series of clinical demonstrations or dry clinics at several f the large hospitals in which surgeons inter

nists pathologists roentgenologists and other spe ciali ts will participate to discuss some of the more important surgical subjects thus bringing to bear on such subjects the best and most recent thought developed in the several departments of medicine

Gener I & do establish ner of Br ture first

uy it publication in the next is ue of this journal All departments in surgery will be repre sented therein general surgery gynecology ob

Room E u 4 400m and other large room and foyers have been reserved for the exclusive use of the Congres These rooms will be utilized for evening meetings business sessions

1

regi tration and it ket bure-us bulletin rooms executive offices etc engaged in the practice of surgery of the eye car no e and throat

thereto. The programs for these sessions to be publi hed shortly will outline an interesting setres of papers and discussions of matters related to the conduct of hospitals to be presented by surgeons superintendents nurses trustees and others

based upon the result of a survey of the amphi

will the fut on serial by the serial by

much improved since the list meeting in 1911 by the erection of a number of fine large holels situ ated within easy walking distance of the Bellevue Stratford so that amy le accommodations at rea sonable rates will be available

International **Abstract of Surgery**

Supplementary to

Surgery, Gynecology and Obstetrics

EDITORS

FRANKLIN H MARTIN Chicago SIR HERKELEY MOINIHAN KCMG CB Leeds PAUL LECENE Paris

SUMNER L KOCH Abstract Editor

DEPARTMENT EDITORS

DEAN D LEWIS G neral Su g ry CHARLES B REED Gym of sy and Ob tel JAMES P FITZGERALD Surg ry of the Ey LOUIS E SCHMIDT G nito-U nary Su gery PHILIP LEWIN O thoped ug v

ADOLPH HARTUNG Ro ntg nology FRANK J NOVAK J Sugry of th E No nd Thot

CARL A HEDBLOM Chest Surgery

CONTENTS

-	and to a residence of Cutterin a Relating	***
11	Authors	ıx
ш	Editor's Comment	x
ĮΥ	Abstracts of Current Literature	361 423
17	Bullionanhy of Coment Literature	124 446

Ed tori I ommunicati m h uld be nt to Franklin H M et n Ed to 54 East Eri St Chi go Ed tort I ad Bu n & Offi 54 East En St Ch go Ill n U S A Publ h refor Gre t Britain B II Tind II & Co 8 Henri sta Sr Co ent G den London W C



CONTENTS-MAY, 1925

ABSTRACTS OF CURRENT LITERATURE

SURGERY OF THE HEAD AND NECK

Spinel Cord and Its Coverings

Head		Oth rs Discussion o the Dagu sis and I cat m t f Comp es in Parapi gia	166
LEWALD L T Dulatati n of the D pl ic Ve ns a d Other Anatomical Var ations n the Skull	361	p - 7-00	-
		Pempheral Nerves	
Eye HOWARD H J The Rôle f the Ep thelial Cell in C numer al and Corneal Infections	36	GOSSET A The Re its Obtain d in the Su gery of Periphe at Nerve Injuries fr in Injuries f in W P jectiles	350
GENEN I DE Inflammatory Swellings Sun lating	-	D	
	36	Sympathetic Nerves	
PHEERS, K. A. C. llulit s of the Orb t in I fa ts and Children with a Report of T n Cases	362	HOLMES W H and RANSON S W C rv cal Sym p thect my in Angina Pecto is PAIMA R An Experim ntal Contribution o Peri	368
Ear		a te al Symp th ct my	369
SONNENSCHEIN R Stud s of the Rinne Test with Special R fe ence to the Tu ing F k Stem f r		SURGERY OF THE CHEST	
B th B c and A Co d ction	36	Trache Lungs and Pleura	
O MALLEY J F The Impot ac f the Early Treatm tof Ac to Otitis HASKIN W H Corat Treatment f the	363	Jackson C Foreign Bodi a in the Ai a d Food Passag Cha t d Exp ri ners in 55 Case	
HASEIN W H Co r at Treatment f the Chronic Suppu at e E	363	at the Brouchoscopic Chaic	37
-	•	K M and Moore W F Br nchose py as an	
Pharynx		Aid to th Thora cSugo	37
ALBERNAZ P M The T atm t of Vincent	363	Esophagus and Mediastinum	
MKENZIE D Dathermy th R mo l and	•	TUCKER C Coatnoral St no f th Esopharus	
T atme t fPh ryng Ca	363	w th Particula Reference t Treatme t by C n time us String R t grad B usings with the	
Neck		Author's Bougle Tones F Carcia ma of the Tholac Portion of	37
ZELLER H Go ter Pr phyl x: w th Iodine	364	TORRE TO CONTRACT TO THE TOTAL OF	37
		ŧ	.,
		ı	37
ELSZ J E. Atyo cal Toxac Go ter	364	ALLEN D S Furth Exp im ntal Rec stru ti n	3/
GRAHAM A Mahenant En thebal T more of the	364	of the Œsoph gus with Aut g our Fascia Lata Transplants	
Thyro d with Special Reference to the In as on f Blood Vessels			37
HELLWIG C A Angesthesia in Operations on the	364	SURGERY OF THE ABDOMEN	
Thyr d Gland t the Schmieden Clinic in Frank fort n Main		Abdominal Wall and Perstoneum	
	365	RAZZABONI G Plastics of the Abdominal Wall with Transplants of Fixed Tissues	37
SURGERY OF THE NERVOUS SYSTEM	i.	Gastro-Intestinal Tract	
Brain and Its Coverings Cranial Nerves		BERRET K Th Artenes of th Human Stomach	
DANDY W. E. and ELMAN R. Studies in Experi- mental Epilepsy	366	and Ther Relation to th Etiology and Patho- genesis I Gastric Ulcer	3)
	1	in.	

Ulcers U a d'acció U a similipie G the		External Gen talia	
BUTALISM M. THE B at Ga tro-Ent restoney Technoque of our the State and Mechanical V wpolatis RETHOR V N. F. Jr. Bit d End C reul r Suns of the Intestin (fishted Method) GRAY G. M. J. tugs sception A Series of Twe by WIECE P. B. What Gon titutes Consupatin s— Some Observations in the Gon. Lewald L. T. Right S ded Di ert cubit and D ert whole.	373 374 374 375	BER E. J. A Lag. W. und of th. Gr. 112 R. gon with Almest Compile Term I gloose; I di. Vul a Regal I th. Vul a and Vulvail U the by Cystoriomy and R trograd C th. t. Lativ Missecliane us Doctat D. Chron. Chackache in Gynec ! gy LENORMARY C a d LENDVIC R U t o agnal Field as Demong Hyst rectiony Person F. Th. Ch. e I Anaesth in C Pocedic an 1.	38
CC " "		•	
Liver Gall Bladder Pancreas and Spleen	375	MILIZA J A Cas i Mal gnant Hydaudiform Mole with Pulmonary Metastases Vocr E. Gynec logical V Ray Careinoma Mossé S ad Dougale R E at ly Post perat	381 38 38
BLALOCK A Biliary Tract Disea e	377	Obstru tion : Gynecology	38
DEMEL, R a d BRUMMELKAUF R Th Function of the Gall Bladder An Experim ntal Study	371	OBSTETRICS	•
HILENSEY A O An Obl que Tr us ectus Inc sion		Pregnancy a d Its Complications	
f Gall Bl dd r Oper t s M atrilaneous	378	HARDING V J ALLIN K D a d VAN WYCK H B Th Non Proben N trog n d U Acid V lues n the Blood 1 Pr gnancy	
DEAVER J B The Ac te Abd m n		BURGESS H C A Chuscal C sideratio of th	38
KAPPIS M A Co tubut n n the Ongin and Traim t IS gultus	378	Contracted P I i Litzenses J C Dorupt r d Interstit al Pr g	38
GYNECOLOGY	,	n cy with an A tomi al d Histolog cal R po t of a Early Case LEVY W. E. Intratt I Peg ancy with th Re	38
Uterus		po tol g U rupt ed Cas	39
GUILLEMINET M s d Micho L Th Clinical Study a d Treatme t f th D uble Uterus with Regard to Ten Unp blished Cases	380	GAIFAMF P Om neal Adhes as Suggesting Recure t Extra Uteria P egna cy SURREIDES II Sim It neous P egnancy a B th Tube	394
DONALD A The T eatment of M ble Backwa d		Postizwicz and Monacz Fetal Ret nti and	٠,
Displa ement f the Uterus Couv la re A Results f th Tre tm t f chron c ryical m trits with F lhos Cau t c	380 381	T azenia of Pr gna Cy He norm C. f. He as all Street to in Oh tetrors	391
HEYMAN J T o Cases Illustrate g a Detail a the Statistica f Ca cer Ute	38	with Special Ref ce to Multipl Abo t n (Re I) and to Py l tis f Pr gna cy	391
		Labor and Its Compl cations	
Adnezal and Persuterine Conditio s		RUCKER M P Th Use of N oc 10 Ob-	
bolomovs B and BrovtE GA ENSY J W N ts the Format n Stru tu e d I hys logy of the Corp s L teum of M a the P g and the D ck B il d P l typ	35	Guinor P Temporary Extrioniz to I the Uteru Aft Casa ea Section and Its Repla e- ment in th Abd m n Aft Y ty F Days	39
BATTEV K V Th Et lov Clasificat nd	•	CHATHLON F Th Resi tane f Sc rs to the	340
Life Hist ry of Turn rs of th O ry d Oth r Female PI c Oga s C taun ng Aberta t M lle an El ments w th Suggest d Nome clature	38	Low S gm t of the Ut rus Puerperium and its Compil cations	393
SAMPSON J A E dometrial Ca oma f th		ADAR F L Th Infl ne f D ton La tation	394
O ary Arisi g in End met ial Tis ue : Th t	38	F CHINSH IF A. dF CHILADE P The Relating f G tal Tuberrulo t Puerp raism FRANK J The Asc at of Gonorrhos 1 th P	395
ZONDEK B d WOLF E Th T n pla tatt of C n erv d H man O are	387		395
WETTE DAL P Some Experi e n Cases I Tuberc lous Salp ngo-Oopbontus	383	as we a M to toth Puero ral Diseases Pa	396

404

404

404

404

405

Blood Vexsels

sson of Blood Vessels

Angs tis Obliterans.

SURGERY OF THE BLOOD AND LYMPH

364

414

Granaw A Malignant Ep thelial Tumors of the Thyro d with Special Ref rence to the Inv

Transan E D and Storroan J S B Thrombo-

the Physi pathology of the Prostate Deferento-

CAULE J R and SANFORD J H The Cautery Punch Operation in the R moval of Ves cal Neck

CROSER A H Notes o a Series of Prostatectornes

DILLON J R. Tuberculo softh Seminal Tract

Urethrostomy

Obstructions

DAVIS E Penneal Prostatectomy

385

392

457

418

414

812

PRYSER F The Chaice of Amesthetic Procedure in Gynecological Operations

Ruckes M P The Use of No ocam to Obstetnes

CHRISTIANSEN E B De Ethenization by Carbon

Duride Inhalation

.-

...

matic Shock

Refe e ce to Treatment

General Bacterial Mytotic and Protozoan Infections BARTOLE O Actus my our Infects na, with Special

Can er

357

400

4 0

470

364

375

184

4 1

422

423

BIBLIOGRAPHY

Surgery of the Head and Neck		Genzin-primari purferi	
Head	474	Adrenal Kadney and Ureter	437
Eye	424	Bladder Urethra and Pen s	438
Far	425	Gental Organs	43
Nose a d S uses	425	M scellaneous	43
Mouth	426		
Pharyn	426		
Neck	436	Surgery of the Bones Joints Muscles Tendon	13
		Cond tions of the B es Joints Muscles Tendo s	
Surgery of the Nervous System		E .	439
	427		449
	427		441
	427		441
	428		
a 5	418		
		Surgery of the Blood and Lymph Systems	
Surgery of the Chest		Blood Vessels	44
Chest Wall and Breast	418	Blood, Transfusion	443
Trach & Lungs and Ple rs	428	Lymph Vessels and Glands	443
(Esophagus and Mediastinum	420		
Misc lianeous	429		
	7-7	Surgical Technique	
Surgery of the Abdomen		Operative Surgery and Techniq e Postoperati e	
Abdominal Wall and Pentoneum		Treatment	443
Gastro-Intestinal Tract	4 9 430	Antisept c Su gery Trestment of Wounds and Infec	
Li er Gall Bladd r Pancress and Spleen	431	t ons	443
M scellane us	432	A resth	44.
	73-		
Gynecology		Physicochemical Methods in Surgery	
Uterus	437	Roentgenology	44
Adnexal and Per uterine Conditions	433	Rad um	44
External Gen talia	433	M scella cour	44
Miscellaneous	434		***
Obstetrica		Miscellaneous	
P gnancy and Its Complications		Character Company to the tr	
Labor and Its C mplications	434	Clim al Ent ties-G neral Physiol great C nd tions	44
Puerperium and Its Compl cations	436 436	•	44
Newborn	436	•	44
Miscellaneous	430		44



AUTHORS

OF THE ORIGINAL CONTRIBUTIONS WHICH ARE ABSTRACTED IN THIS NUMBER

Day E 4 4
D a e J B 378
Dem f R 377
Dillon J R 405
Don ld A 38
Doubière R 387 Ada F L 314 Albeinaz P M 363 Ali D S 371 Allin K D 389 Ant lawa N 411 Alberna F M 503
Alb C S 271
Alba K D
Jeans P C 47 Jon S G 406 Judd E S 373 Kana I A B 40

Palma R 369 P timall F 400 Perazz P 306
Pete H A 4 2
Pey F 385
Ph lp K A 362

EDITOR'S COMMENT

OSSET S comprehensive review of the re

1 surnals

A number of papers of princular interest to the genecologist and of tetrician are also included in thi group. Lenormant's abscus son of interervaginal fistular following hysterectoring (p. 38.). Wetterdial support of fifty to acce sof toberculous dicase of the indicas (p. 183). Viosa, and Doubrères review of six car eso fearly post operative intestinated of struction following gyne-cological operations (p. 367) and Gounnet so

fatal metastatic puerperal infection developing in the fourth with of the puerperium (p.30) and Hunner's comprehensive discussion of the pathology and treatment of ureteral strictures occurring in ob tetrical patients (p. 371) empha size other important phases of ob tetrical practices

DLRLIT'S careful de crition of the anatom of the arteries of the stomach (p. 372) and judd and Iroctors review of the findings in eighty even a coof multiple 23 trice.

ulcer (p. 373) will inferest particularly the gastroenterologist. Devier a unmary of the symp toms and treatment of the acute abdomen (p. 378). Gray a report of twenty cases of intussusception (p. 374) Torot. Eggers and Ulen a symposium on carcinoma of the casephagua (p. 371) and Tuckers.

mentioned Lemon and Mahles alies usin on certop readmonmom (p. 386) concerns a subject which has attracted widespread attention in recent year. Beye a resum of the errors made in the Yrav diagnost of esteogenic sircona (p. 400) and Bloodgood a review of the important points in the differential diagno 1 of penosteal bone lessons (p. 400) are helpful contributions toward the olution of the difficult problem Lexer's extensive report in collaboration with Rehn Edden Rohde and others on the re ultis of free transplantation of tissue (p. 410). Ananyel's

that are being expended on the difficult problems of reconstructive surgers

INTERNATIONAL ABSTRACT OF SURGERY

MAX 1925

ABSTRACTS OF CURRENT LITERATURE SURGERY OF THE HEAD AND NECK

HEAD

Lellald L T Dil tation of the D ploic leins and Other Anatomical Variations in the Skull im J R 1g 1 9 4 536

In view of the general impression held by radiolo g sts a d neur log cal surgeons as to the importance of prom nent diploic veins markedly increased cere bral depressions variations in the picutary for a

2 I comment convolutional markings on the v 11 ...

artenes

4 Calcium deposits in the pineal gland can be demonstrated in healthy young adults ADOLPH HARTUNG M D

EYE

Howard H J The Role of th Epithelial Cell in Conjunctival and Corneal Infections im J Oplik to 4 18 900

Howard credits Lindner with being the first to

con itton 1 persons who are not suffering from any lemonstrable attractantal I son. Great care must be e ere el m e timati g the value of roentgen find ngs of this nature in any given ca e as they may n'i commonly do represent normal con bito s or natomi al va at ons

e in w sides usually differ The auth 1 concludes with the following state

With improved technique and particularly with the 11 of the Pott r liucky d aphragm socall i diated dil c veins can b demonstrate I ir many apprently healthy per ons. These yeins 277

slu u abandone i for som anatom cal t m

such as prominent d ploic enous channels. This pict re has be ob reed in healthy children at the age of to years

parasitic organ sms include bacte in and epithelial cell inclu ons The bacteria are the gonococcus

u I neumococcus he pneumococcus som times becomes pathogenic

The data gained by a study of specimens of the various stages of inflammation caused by these tı ٥ Green J Jr Inflammator, Swell ugs Simulating

recognized

erra diffuse the inter

factors may sac. The same may be true of the apper masal cavity. Orbital abscess may no not at the steet the sac. Furunci s and gummatous infiltrations are less common

theal cell tide triough the openings into the posterior surfaces of the cells & on all layers

The article reports a case of asteomyelitis of the superior maxilla which pointed at the site of the lachtymal sac Q 18 Trees 18 month

Phelps k A Celtulitie of the Orbit in Infants and Unlideen with a R port of Ten Cases At Ot I Rh of & L yet | 0 4 xxx11 501

I helps believes that orbital celluliti is very com

Lacteria are cast off

EAR

n

the cellular extoplasm and apparently feed upon at I requently tiny red bod es element by bod es are seen in the same spaces with the blue bodies

Sonn aschein R Studies of the Rinne T at with Special Reference to th Tuning Fo k St m f r Both Bone and Air Condu tion. L 1 2 09 914 8111 0 0

The author summa izes the articles he has written on the Rinne and Schwabach te ts du ing the 1 t seven year He r gards th Rinne test as the most valuable of the fork te is and I el e es it may well replace th Schwabach test for bone conductio Air e aduction as compared with bone is much

O Mailey J T The Importance of Early Treatment of Acute Otiti B 1 H J 1924 1 93

Siegel oto cop tentizes the ear carefully with 75 per cent alcohol dries the ear with a current of urof low pressure and then dusts the cavity with equal parts of no ophen and compound stearate of zine. He has found this technique to give the best re ults in his private practice a radical mastoid operation has never been neces are affect its use.

GEOR ER MCALLI & MD

PHARYNX

Albernaz P M Tl Treatment of Vincenta Anglna (La thé peut q d lange e d V cent)
1 ch t i st d i ynt i 1924 x 917

Ha kin W. H. Conservative Treatment of the Ch onte Suppurati e E.a. Ann Oil Rh n l & L y tol 1924 x

Practically all cases of chronic suppurative offits media with the exception of the tuberculous asymhittic are fue to invas on through the esustachian tub. General conditions predisposing to chronicity are the exanthemata especially scarlet fever and mea less severe wasting di eases lowering the tone of th.

l oca

small p 14 po ut Le une to the Lened

in every case the pain always c ased completely

t 4 moi) ti us p eumococcus staphylococcus and tubercle b cillus

0 C L l 1 1 co well the lesson 1 not modified promptly the strength of the cmul ion is increased from 1 to 3 per cent. A to per cent emil ion may be used without do per but Albernaz has never found it necessary to employ a strength greater than 3 per cent. Watter C Berrey M D.

M ken le D Di thermy in the Removal and Treatm nt of Pl aryngeal Cancer B i J Ra d I 9 5 9

The author states th t no remedy heretofo e

m nt

ŧ

rg ly In

cat vator removes all secr tion by suction with a

countries

NECK

Z Her 11 Goiter Prophylaxis with Iodine iZur Kropfpr phylaxe mu J d) kl n il ck k g24 tion. He emphasizes the fact that the effect of sort a

inprovement
In a case of acute fulminating evoluthalmicg ter
indine was of no beneft and d the resulted. Else
recommends ligation or \ ray treatment in such

Another group of case discussed are those as n in the stage of remis in when the symptoms have subsided. A subtotal double lobectoms usually effects a cure

- h1

VOLKHA N (/)

Else J E Atypical Toxic Golter Sug Cin 1 4m

Mason discusses the typical course of exophthal mic goiter. He divides it into four stages an ir ports

the most lity should not be more than a fract on of t per cent II Iforr Coy VI D

Graham A. Malign m Ep th i al Tumors of the Thyrold with Speel I Reference to the I va sion of Blood ve sels 5 g Gv < 50 ls 9 4

of mal sance

ı

can be no meta tasis until ther has been

ly 1 cap ules but they may be malignant and cau e death by di tant m tasta 1 th ough the blood i.e m Sin e op per c nt i m lignart ep thelial

The invasion of the blood vessels i not difficult to recognize Exim nation of the thyroid veins the veins of the capsule and the veins of the tumor imme liately beneath the capsule will usually did on the presence of any gross thrombus or gross erosion and these findings may be verified easily with the incroscope. When the lesion i not advanced a few Hacttel and Meeker and Hun ling are all dangerous because the novocain may be about 0 in the pinal fluid and posterior and the probability of the

artery
In the subfascial block type of anæ thesia which

Heliwig C A Ancesthes a in Operations on the Thyroid Gland at the Sci mi den Clinic in Frankf rt on Main M t M d 9 5 vm 17

At the Schmieden Clime local anasthesia is re

the author uses he injects 75 c cm of 0 5 per cent novocain solution subfascially at the middle of the posterior margin of the sternomastoid mu cle and

the solution prevents the symptoms of novocaun pot oning. The patient is prepared by heavy doses of morphine and atropine.

STANLEY I SEEGER M.D.

STANLEY J SLEGER VI D

SURGERY OF THE NERVOUS SYSTEM

BRAIN AND ITS COVERINGS CRAMMAL NERVES

Dandy W F and Elman R Studies in Experi

mental Epliepav Bull J h s Hoph s H sp Balt 925 xxv1 40

The authors believe that injury to th

motor cor vul ions e

mais Ini

to convuls

When the save dose of absinthe is given to an animal with an injured motor cortex unilateral convulsions develop without loss of con

actousness

Dandy and Elman also review and discuss the literature upon the production of convulsions by interference with the cerebral circulation Loral Day, M.D.

SPINAL CORD AND ITS COVERINGS

Felling A Carlill II Burrow J W and Others A Discussion on the Diagnosis and Treatment of Compression Paraplegia B # M J 974 1150

In this discussion the term compression paraplegia is limited to those pathol or 1 a Th the spir

PERIPHERAL NERVES

G aget A Th "

Gosset discusses the surgery of the penpheral nerves and the brach al plexus on the bass of the literature and his own cases

THE MUSCHLOSPINAS, SERVE

The conclusions drawn with regard to the musculospiral verve are as follows

Regeneration is favorable for function because the injury is usually in the middle th d i below b -

t un the nerve Circulatory disturbances and causalgia are rare

2 Operation should be n f -

bei bei

o isiderable

beve com tion tra i

THE ULLAR ALEVE

Ulnar palstes with the les on in the arm or fore

a is ometime a complete temporary loss of function. The pressure exerted by a collection of cerebro spinal fluid dammed up by chronic adhegitls or h

in the with n t to any d ic urred

guently Sutu e gives only partially successful results

Regeneration almost never extends to the hand mus cles (hypothenar eminence and interesses muscles) The axis cylinders do not read ly re enter the nerve

pearance of movements) to two years or more (ultimate amelioration) Liberations from compression result in recovery in from 43 to 60 per cent of the cases Suture gives a good result in from 17 to 70 per cent

THE MEDIAY NERVE

cles with exclusion of the thenar eminence and sensa h h

form the hand into a nearly useless structure in

which muscle re innervation can accomplish little

SENSORY MOTOR PARALYSES In ordinary sensory motor paralyses liberation of the nerve has been followed by a cure or marked

eleven there was marked amelioration or recovery after from one to twelve months. In one case in which there was a serious injury of the brachial artery the pain persisted after resection and suture

BRACHIAL PLEXUS

long

In cases of injury of the brach al plexus hasty

3 The limb muscles atrophy quickly and recover function poorly

4 Troph cloot disturbances are resistant and hin der function

The average interval between injury and op eration and the outcome are as follows

N rv	F vo bl tc m Mos	Improv m t Mos	F 1
Scratic trunk	Q	4	7
I rternal poputeal	3	6	6
Internal popliteal	5	7	7

In one case of severed external popliteal nerve in

cate latture

3 Perfect recovery of motor sensory and elec-

lotations then t

NERVE SUTURING

In Go set s cases liberation of the nerve and suture respectively resulted in recovery or great imp ove

111

SCIATIC NERVE

The causes of fal

1

as rigid to of the band or foot ankalosis stiffness of exten or or flexor t n fons and complete atrophy f muscles and (4) insufficient postoperative care

VERVE GRAFTS

The following conclusions are drawn regarding norse grafts

s In cases of contusion of a nerve trink conservative expectant t estiment and observation are preferable to operation.

6 in input, seen only secondarily of late should be operated upon a soon as it is degreed by a discount of the preferable operation of the secondarily of late should be operated upon a soon as it is degreed by a discount of the preferable operated by the secondarily of th

a Autogenous grafts hav given the best results With rare exceptions here openeous grafting by the method of happoits has filled in man

CALSALGIAS

Conclusions on causalpias are the following.
The sharp pain vasomotor and trophic it turb

changes in peripheral nerve on be second to neuriti) (2) contributal path (intraneural and periar

senou sempathectomy section of post stor roots together with sympathectomy to uzation readia therapy etc. If penarterial yripathectomy fails

results in f om 40 to 60 per ent of the cases de pending upon the per e affected. After two years operation hould be tried but the chinese fin ou

GENERAL CONCLUSIO &

SYMPATHETIC NERVES

Holmes W H and Ran n S W Cervical Sympathectomy in Angina Pectoris J Lab 5

The with eser port a case in mb ch the pro a sm !

neurologi tafter r pe t d ex n mais n and shows either no reg n fation o gns of us le s r ger era tron such as xon s of statu nary paraschessa 3 Op ration ind cated i the causal ria and seri

ous neurit s

4 K rly inter at on is of impo tan e During
p imary surgical nound of an ing the condition of

i

angina and thereafter the pain recurred with

done at the time of the resection of the sciatic nerve the removal of the perivascular sympathetic did not hinder the appearance of the ulcers and did not cause them to beal

children

The objective signs following the operation are those constitute g the syndrome of Horner The

courses than the cervical sympathetic trunk it is assumed that relief is due to the division of the

pain is caused entirely by structural changes in these vessels KNET II HOLEK M.D.

P Ima R An Experimental Contribution on Persaterial Sympathectomy (Cont b to pr m nt i ii the dil mp tectima persat to s) in fait d hr sp 1 1 8

The author performed experiments on dogs to check the results reported by Leriche and Seifert The sciatic nerve was resected to cause the forma cation with incomplete removal of the vasculissymp their constrict on othe arternal walls by the catricial sleeve and abolition of cutaneous sent iteries frought about by the interruption of the vaso inhibitory routes is sufficient to e plain the failures and the transitory effect of perinterial sympathectures. While Edward is the properties of the p as rig lity of the hand or foot ankylosis stiffness of extensor or flexor tendons and complete attrophy of muscles and (4) insufficient postoperative care

VERVE CRAFTS

The following conclusions are drawn regarding nerve grafts

Present the formation of selevatic tissue

S In cases of contu or of a n tve trunk co servative expe tant treatment and observation ar Different to operation

6 In injury seen only econducily or late should be operated upon as soon as it is diagnosed or yield

CALSALGIAS

changes in peripheral nerve ends se ondary neu ratis) (2) centerpetal path (intraneural and periar

CLNERAL CO CILSIONS

The following general con its one are frawn
t Operation is indicat I in e er; er e of nerve
compression whi h grows progres well orse and

th care the P vat on V D

d san

ŝ

SYMPATHETIC NERVES

Holme W H and Ranso S W Cervical Symp thectomy in Angina Pecto is J / b or G 31 d 9 4 x 33

4 La ly intervent on 1 of importance Dun g

ŧ

angina and thereafter the pain recurred with increasing frequency and seventy. Nitrogly cerine and amyl nitrite gave almost immediate relief but the subsequent prostration was extreme

During the period of eleven and one half months which has elapsed since the removal of the superior cervical sympathetic ganglion the pritient has at no time experienced prostration pain in the thorix or left arm or a sense of constriction and she has heen able to earn her living as the nurse of two small

children

The objective signs following the operation are
the constituting the syndrome of Horner The
mechani m by which the operation relieves pain can

tion of trophic ulcers and sympathectomy was then done on the corre ponding femoral artery

It was found that in all cases both those in high the sympathectomy was done prior to the operation to cruse trophic ulceration and those in which it was done at the time of the resection of the scritic nerve the removal of the privascular sympathetic did not budge the appearance of the ulcers and did not cause them to heal

The action of sympathectomy is the more prompt and efficacious the sooner the operation 1 performed after the appearance of an ulcer

There 1 no basis for the assumpt on that not

pain is caused entirely by structural changes in these vessels KNUT H Houck M D

Palm B ara -- c

The author performed experiments on dogs to check the results reported by Leriche and Seifert The sciatic nerve was resected to cause the forma sympathetic construction of the arterial walls by the incatrical steeve and ibolition of cutaneous sensitiveness brought about by the interruption of the vaso inhibitory routes is sufficient to explain the failures and the transitory effect of periarterial sympathectomy. We a like van

SURGERY OF THE CHEST

2 F .d

TRACHEA LUNGS AND PLEURA

ESCHAGUS AND MEDIASTINUM

The toords of cases of foreign bodies in the air and tood passages I hich have been treated at the Bron choscopic Claic Philadelphia were charted by Jackson in order that he might have on hand an eas ly accessible record showing at a glance how the various problems have been met and what results were obtained from the treatment given. The treat

024 XXX

Jackson C. Tucker G. Clerf L. H. Lukens R. M. and Moore W. F. Bronchoscopy as an Aid to the Thoracle Surgeon J 1 1 W As

Bron hoscopy beers much the same telation to thoracic surgery that cyatoscops bears to g nito-urinary survers. In some cases of thoracotomy at may be of advantage to insert the bronchoscope and to cut down upon the cavity a hile the instrument is

Contra ind cations to bronchoscopy are indica tions for its postponement rather than its avoidance These const t of fulminating suppurative pneumoritis threatening runture of a pulmonary focus into the pleural envity cacheria sepsis and serious cardiovascular disease

The authors have not seen a death that mucht be directly attribute I to bron h scopy However bronchoscopy has not been u ed in hopeless and monbund cas a

arsophagus

On c sophagoscopi examinati i the prophagus is fou d to b dilated above and between the stri tures. The strictures vary in appearance some be the white cords na rowing the lumen and others proje ting into the lumen The treatment n was all has changed a pao prog

nos \$ into a goo f one

stan Jacksen's method of passing a bough

a piration h stens recovery the wheth hu abs ess with a fluid lev t vill re sond a mert as read h

h lo gin may b

into place the relaxing of the tup permits its re expansion. The bouge is left in place for twenty, five or thirty minutes. Meet the patient becomes accustomed to the treatment he experiences very, little I scomfort from it.

RALPH B BETTHAN M D

Torek F Carcinom of the Thoracic Portion of the Esophagus Report of a Case in Which Operat on Was Done Eleven Years Ago A k S & 925 x 353

Lata Transplants f ch S g 9 5 x 374

. .

tion of food and appears to be in better general health than previously. Torck emphasizes the importance of an early operation for a successful result

EGGERS states that for the early d agnos s of car crooms of the esophagus reliance mu t be placed on t

ALLEN tabulates briefly the basic operative procedures which have been devised for croopbagoplasty
His own plan of operation is resection of the car

drawn

This procedure prevents infection of the mediastinum from leakage of the contents of the cesopha gus. Exit. C Rositsias, M.D.

SURGERY OF THE ABDOMEN

ABDOMINAL WALL AND PERITONEUM

Razzaboni G Plastics of the Abdominal Walls
with Transplants of Fixed Tissues (La pl. tica
l ll pr ti add m als l tr panio di tes uti fi
sui) l h tl d ck to a x 227

between the vascular supply of the anterior and posterior sides of the stomach vessels of large caliber run almost vertically of er the stomach wall from the left gastne artery or the de cending ram

ogous fixed musculo-aponeurotic strips or fixed strips of fasca lata or auricultr cartiling. The operative work was don und r the usual surge all aseps and the behavior of the grafts at various stages was determined by microscopic examination.

The e experiments demonstrate; the formation of a crt of connective tissue v scalar capsule about and upon to osurfaces of the graft; ke that found by locature.

angle into two main branches forming larg

t on of conne tive to ue encapsulating invading an t eventually taking the place of the graft. In again is joined up by and tomo es to the nearest after, with a vertical course. In the interspaces of these meshes run very small arteries which without anastomosing end suddenly in a point like protuber are.

The acts o k of large arter es is most conspicuous at the funds, and becomes less ma ked toward the

GASTRO INTESTINAL TRACT

Berief & The Arteries of the Human St mach

The nuther injected the arteries of the stomach in twenty cadavers with a solution of gelating to which is the solution of gelating to which

greater curvature and preserv din i rmain the two

From the \(\) ray pl tes of thes specim ns the impression is gained that the less r curvature has only a moderate vascular supply and that the course

satisfactory solution of the ulcer problem. On the other ha d the viscular theory explains by one and the same cause the site shape and chronicity of COLLEY (2)

Judd E S and Proctor O S Multiple Gastric Ulce s Med J & R c 925 c 193

Jull and I roctor report a series of eighty seven cases of multiple gastne ulcer operated upon during After a review of the methods of gastro enteros

influenced by (1) the length of the jejunal loop

ti enti t o

HULUH

importance in the technique of gastro enterostoms Today anastomosis with a short loop or no loop is considered by many surgeons the method of choice in the posterior gastro enterostomy of von Hacker In recard to the disposition of the jejunal loop

guarantee of good function of the neopylorus Experimental investigations and roentgen ob cr

•

vations have demonstrated that as regard drainage ol the stomach the anastomotic orifice tends to function better the nearer it is placed to the pyloru This is true especially when the stomach is of normal or almo t normal size When the orifice i placed as near as p so ble to the greater curvature a collection of ga tric material beneath the anastomosis is prevented

The anastomotic orifice shoull not exceed in amplitude the width of the jejunal loop. If it is late r e acuation will be too rapid

On the basis of the literature the author d cu es the function of the anastomo is in stomachs with a permeable pylorus and in those with secondary stenosis of the orifce the e acuation of the stomach after gastro-enterostomy the chang s in the volume of the gast o enterostomized at mach and the

the lesion and a general search for syphilis Many types of op r tion w rep rformed nelul

All dis 101 & 10 clos the examinate it of

numbe of ga tric ulcer operated on being 3.4 per ont s g st 45 per cent R sults clas ed as ex c ll nt and good comprise about 65 per cent of the known r sults

Buf

thild k

I oor fu ct al results after gastro enterostoms which were en frequently in the past are now b ming more rare b cau e f changes in the oper ativ t chiniqu

iti ila oob TIU S PASTIO entero tomy techn que is describ d in detail. The operative disturbance of the gastroduodenoiemnal circle Gastric lavage has been u has he

101

274

" operative techniques This twenty cases are reported in detail. In all of them the X ray showed that the anastomo is functioned well completely evacuating the stomach and keeping the pyloroduodenal tract at complete or almost complete rest without obstructing the pas sage of gastric contents through the pylorus. The time necessary for the evacuation of the stomach

further Following this a rectal tube was placed through the opening made by the house and at lowed to remain in place about 8 cm above the site of the ana tomosis being fastened to the buttocks with small strips of adhesive. A cigarette drain was then placed to the site of the anastomous and the

abdomen closed Twenty four hours after the operation a fluid how el movement occurred and thereafter the stools were entirely normal. The rectal tube was removed

forty-eight hours after the operation The points in favor of this operation are sum marized as follows I As th

. At r quires less handling of the bowel and no special clamps

clusion has a peptic ulcer developed W A Baras v

Rienitoff W F Jr Bilind End Circular Sutu of the Int atine (Halsted Method) B ll Joh 2 Hopk s Hop Dalt 935 stvi 81

The author reports a case in which he used the aseptic blind en l'circular auture described l' 1 sted in 1022 Th

was don mord col The co

neum to u us abov and below was used

firmy G. M. Intussusc ption A Series of Twe ty Consecutive Cases L # 1 19 5 cc 7

Cov mon to an secuti recogn

ful tre All ere FB 0 10

ď

be tightene On the p were place

gested by Halsted th f

on clas instances there was a dist not emptiness of the right a ac reg on and absence of gu gling over the cæcum

In ten tases th

all

ſЪ

if very long was first partially reduced within th alylomen and then delivered

The after treatment consisted in the subentaneous infusion of a 2 per cent solution of glucose in normal saline solution This diminishes the shock Mornhia was administered if the child was restless and feed ings were begun from four to six hours after the

Other factors of the digestive mechanism are normal stass or barriers against too rapid a passage of intestinal contents These are the pyloric sphyneter and the ilencarcal valve

of cases reported there were only two deaths TORY W NIZUM M D

Welcl P B What Constitutes Constipation— Some Observations on Colon J to a St t M Sor nas v

As a result of clinical observations & review of the physiology of the intestinal tract and a study

only one bowel movement a day EMILC ROBITSHER M D

LeWald L T Right Sided Diverticulities and Di verticulosis Rd lev 10 t 1 4t

Diverticulosis may be present without diverticula tis It occurs more frequently on the left side Dive ticula are diagno ed by the peristence of their shadows in the roent genogram for days after the

to t from utcer. Di ert cula may be present in sev eral regions of the d gestive tract at the same time Diverticulitis may be differentiated from cares noma by careful roentg n examination

MARCUS H II BART M D

Heyd C G ARe lew of Some Recent We ken the Surgical Physiology of the Castro Int atinal Tract with Speci t Reference to So-Called Cl ronic Appendicitis Oh Si te M J 024

The gastro intestinal tract is a physiological unit the eff ciency of which depends primarily on the mus cular eff ciency of the gut tube. The musculature of the intestines I ke that of the heart d n ds for

tion acceleration stasis or obstruction of the intes tinal contents. These phenomena are the natural result of restation of the intestinal neuromuscular mechani m In the presence of irritation there; an increase in the tonus of the sphincters with more of less permanent shortening and contraction of the

tion and accelerated beyond it. The sphincteric phenomer a explain the occurrence of pylorospasm and its concernitant symptoms and alterations in the strength rate thuthen etc of intestinal contraction explain the pain in irritative lesions of the out tuhe

In the clinical interpretation of pain from lesions of the gastro intestinal tract two types are recognized There is the pain from a purely irritative lesion

Quantative food dyspepsia was present in 50 per of h

The pain is truly ep gastric and of variable intensity

```
Its onset bears a def nite tim relationship to the in
                                                        The functions of the liver
                                                      inci i
may be tro that to a 4 bous unstation per to
hnn
                                e i cptacl which
      pe e ut completely emptying itself and that
there is a very free lumnh
                                                      commonly comiting induced voluntarily gives com
                                                      plete relief Occasionally there is a sens f chilli
                                                      ocss after meals
                                                         The second st
                                                      ren e
                                                      occum
                                                      opiate
ı
                                                         When the patient is se n in the st ge of ; it ?
                                                      the third stage th
                                                      invest
                                                      assock
                                                      rt bece
                                                      structi
                                                      and th
cause of the act
                                                      of mal
IΠ
twe
                                                      stea I ly
                                                      lever at
fact
                                                      culus s
                                                      c) sur
                                                      tenz
                                                      Its or
ű
                                                      2 50 1
                                                      ance
cı
                                                                                              I w ght
                                                                                 of fue wi
                                                      types.
oc
                                                      not of diagnostic significance si c
ch
                                                      tau !
310
out
tha
H
                                                      ¢
                                                      3
                                                      Ъ
                          r mottled colo ( ) any
                                                      es
a wf
marked increase in the thickness of the wall (3) the
```

The symptoms in this initial stace which lasts from twelve to cichteen hours are those of an irreta tion of the intestinal neuromuscular mechanism pan nausca vomiting and increased abdominal erams showed sto es. The leurocyte counts were cornesingly los

The cultures taken at operation were positive in es per cent of the cases bacillus con and bacillus syphosus predom nated Only 1 per cent of the gall

were usually in the hospital for a shorter period of . -

changes make their appearance HARRY IV RACTUAN M D

LIVER GALL BLADDER PANCREAS AND CDIECN

Blafock & Billiams Trace Disease I Am M Att 941 2 57

> (24 per cent) was in the group with stones in the common duct

cases were studied were under to years of age

: Demel R and Bumm Ik mn D Th r -

frequency was ind g stion. The least severe symptoms and tho evh h halbe nore at for the short est period of time ere found in the group fers s without ston s The inci I nce of per 1 tent jaundice was highe t in the group with stones in the common

du t

Jaundice was pres nt at the tim of the physical

t Jeka ist dier was found most frequently | the ev reu

ii acmorny dria was found in 23 per cent of the gastric analyses Only 13 per cent of the roentgenoE periments on forty two rabbits showed that

Has DEED emptied

The cause of the refilling is the pressure in the bile passages Emptys g of the gall bladder leads to closure of the papilla of Vater and the increased oressure filling

increase later or choledoca

I ractically no bile flows from the gall bladder through the cystic duct because the bile is absorbed

through the wall

From these findings it appears that the gull

The more common cau es will be recognized without difficulty if a careful udy of the history

stimulation of the vagus and to a decrease in the

bility

the vall of the gall bladder which then sets in leads to cessation of the stimulation of the value and decrease in the secretion of the liver they (Z)

tured extra uterine pregnancy acute pancreatitis acute hæmatoge ous infection of the k daey twist ing of the p d cle of an ovarian cyst acute di eric ulius mesenteric thrombosa.

Wilensky A O An Obl que Transrectus Inc slon for Gall Bladder Operations Wed J & R c 193 x 193

physiological rest

organs and the ease of intra abdominal manipulation (3) the possibility of enlarging the inci ion (4) the possibilities of drainage (5) the likelihood of

The high mortal ty of acute cond i one of the al domen is due partly to a lack of intimate knowl

sub equent h rnia
Incisions that have been used to overcome the

examination

stended of liquely lownwarf and outward to the out r border of the rectus and earned through all of the sup 1 erd structures on 1 the antenior she th of the rectus muscle. The fibers of the rectus are

prov n e \ \ \ ute pane eat tis should be thought of in the

This in ision gives an excell at expo ure of the gall bla lder an be enlarged by a vert cal meision and a ity closed Jin A Mozzer M.D.

g strum

MISCELLANEOUS

Dearer J B Ti e Ac te Abdomen S g G v & Obt o 4 744

In m st asses of acute cond to ms of the abdom n three a but for y of a le on uch chron cappendi

In m st ases of acute cond to ms of the abdom n there: a hi tory of a le on uch chron c appendicitis peptic ulce chol cystils pa creatitis or herma been obliged to gi e an infusion of salt solution Abdominal protective rigidity with localized tender ness is an unmistakable sign of intra abdominal surry. If in addition there is flatness on per

singultus for three years and had been subjected by another surgeon to bilateral division of the phrenic nerve and later to resection of the phrenic nerve

.

In explor g a traumatized abdomen when the source of hamorrhage is not apparent it is good practice to extinue first the liver and then the spleen stomach intestines and omentum and to determine whether a retroperationeal organ has been runtured

The liver is injured by trauma more frequently than other organs because its issue lacks elasticity. Lacerations of the liver can be sutured without much difficulty e cept on the inferior surface where packing is necessary. Rupture of the sphere is best treated by selenctomy. I France Doctorty MD.

Kappls W. A Cont ibution on the Origin and Freatment of Singultus (F. B. 1. g zur E. 1. h. g. d. B. h. dl. g. des. Si. gultu.) Alm II h. h. 1924 11 1005

Singuitus is a clonic spasm of the diaphragm by thich air is drawn back into the lungs. The sound is

lasted 30 c cm of a 05 per cent solution vere injected into the side of the neck at the level of the fifth cervical vertebra. To determine the cause of

and 11 to 2 iii s 10 c 1 getter with the mid the and inferor cervical ganglia of the left sympathetic. In spite of this operation the singulius recurred the following night. It was ultimately stopped by vigorous compress on of the largiva at the upper part of the thyroid cartilage and did not recur for four months.

In the authors opinion this singultus was of psychogenic origin. The manipulation used has been described by Koenig as pre ure on the cricoid applied vertically RIEDER (Z)

GYNECOLOGY

UTERUS

Guilleminet M and Michon L The Clinical Study and Treatment of the D bie Uterus With Regard to Ten Unpublished Clases (Etude clinique et thérap ut qu' des utéru do bles àp po de dix ob attons i édites) Gy & d b t 1924 x 145

Donald A The Treatment of Mobile Ba kwa d Displacement of the Uterus Br 1 M J 1924 H

In the author's opinion the pathology of uterine displacements is erroneously interpreted and with few exceptions operative procedures are not nec

cervical uterus)

sche bearing down menoribagia dysmenoribaga
steriller an lleucoriban—are explained
The subtractive the College of the college

The author ruses the following objections to the econcet tons of the patholog

If the uterine veins were sufficiently compresed to cause venous congestion the entre

Of the service is educated as a service of a

of concestion

4 In cases in which a fetroverted uteru has been

pregnancy

A railfal op rat on is indicated in all cales in the hit relate extensive pathogical lesions such as salpingtus fibromats and cancer those in with it, conservative operation is anatomically impossible and those in which the retained uterus would be of no functional value.

mentary

retrov I on The sympoms are caued by the uterine change and do order of function. The retrody file ement is rat it in itself the caus of the symptoms.

From this line of re soning D naild con ludes.

that the treatment should usually be custinge but that in a is see in which there is advanced metric hyst rectomy may be inc. at d. Pe sarv

m hetruati it was cons rved and g n tal life i now normal. In elev n c ses p egnancy occu red and

22.1722

The author r views al of riy ght cases reported in the l terature in which a diagnos s of d uble ut rus z8o Cou laire A Results of the Treatment of Chronic Cervical Victrits with Filhon Caustle (Ré sult is du t tement des mét tes cer les ch q e p les applicat nadec a st que Filhon) B it 5 c d b it it d fine 19 4 m 409

Of nor cases of endocervicitis treated with Filhos caustic minety seven were completely cured. In two there was a mild reaction which subsided after a few days, and in two others a severe reaction necessitat.

In the first case there was a h avy breaking down in and beneath the poos muscle and the microscope revailed small foot of cancer in the wall. The second case showed similar changes and extensive destruction of the pelvis and sacrum. The only other sign of cancer was a cancerous gland the size of a bean in Case 2. It is emphasized that even after the ab

i i i

sometimes may be painful The cases selected for

r fon Ohhh

ROTAND S CRON M D

ADNEXAL AND PERIUTERINE CONDITIONS

Solomons B and B onte Gatenby J W \otes on

In an examination of the corpora lutes of man the pig the rat and the duck billed platypus the authors found that the lutein cells originate pri multiple in the man that the lutein cells originate pri

of the membranes casarean section is indicated

Salvaroze of Palma M D

Ileyman J Two Cas s Illustrating a Detail in the St tistles of Cancer Uterl 4 t sy c S d

The patt int whose cases are reported were under observation for four and a half and two and a half sees respectively and during this time exh bited no signs of cane r
R h f h m

tolliculi given by mouth has no effect on the ail

River - ARTHELL ND

strual blood finds its say into the fallopan tubes and escapes into the pelvic carry carrying with it either endometrial epithelium and atrona cells or fallopan tube epithelium. The latter elements are deposited upon the surfaces of the various pelvic organs and in a certain precentage of case become embedded three grow into these organs proliferate activity; and monthate concurrently with the uter activity; and monthate concurrently with the uter.

Misplaced fallopian tube epithelium reacts def

Sampson J A Endometrial Carcinoma of the Overy Arising in Endometrial Tissue in That Organ A h S f 0 5 2 1

From clinical and experimental studies two theories have been advanced as to the origin of ectopic endometrial tissue 'tecording to one it is a true implantation derived from uterine or tubal mangnant ovarian tumors and their associated pen

lateral as are also benign endomet tal growths in the

6 The age incidence of certain types of ovarian cancers corresponds to that of cancer of the body of the intens.

7 In the first case of endometrial tissue in the o ary reported there was an adenocarcinoma of the

opposite overy

8 Oversen papilloma which frequently becomes
cancerous has been reported arising from the fin

bristed end of the tube.

This acquired endometrial tissue in the ovary offers the most satisfactory explanation of the frequency of careinoma of the ovary as compared with careinoma of the tests both of which organs have

a common embryonic origin

A very detailed description is given of the gross appearance of endometrial implants and the mi

man duct

From studies made by the author the implantation of true uterine and tubal endometrium into the peritoneal cavity by a backflow of the mensitual

three plates and drawings many of which are illus

Zon

of the primary ovarian carcinomata and peritoneal carcinomata of obscure origin. If cancer should

cedure is of advantage becaus the ovarian tissue can be examined histologically and bacteriologically Wetterdal P Some Experiences in Cases of Tuber culous Salpingo Oophoritis Acta gv Sc &

Tuberculosis of the adnexa not infrequently re

of these there were overron sharessis

General pentoneal tuberculosis developed in twenty four cases (46 per cent) but ascites was present in only two. Definite pulmonary tuberculosis was found in system cases, and intestinal tuberculosis

toms of intestinal tuberculosis and their recovery indicates fairly positively that this complication yas

not present. Accordingly there were nine cases in which the tuberculosis of the adnexa has perforated

the intestine

111

In seven of the cases reviewed a correct diagno is of tuberculosis was made before operation by mi croscopic examination of uterne scrapings or granu lations or by guinea pig tests with pus obtained by collections or service different purely of the control of the control of the control of the case of the

In the twenty four cases complicated by extensive pentoneal pulmonary or intestinal tuberculosis the prognosis as regards life was unfavorable Fourteen of the patients died of these complications. Of the remaining then ties the batterits with tuberculosis.

suspected but of course only in the absence of con tra ind cations such as pronounced pulmonary or in testinal tuberculo is Conservative treatment with

ROLLED S Cook M D

EXTERNAL GENITALIA

Berger J A Large Wound of the Genital Region with Almost Complete Tearing Loose of the Vulva Repair of the \ 1 2 pnd \ 1 1

v l et de lurèir la re Par yst stomie et e thétén m ét ograde) B li et mêm Soc i de h q 4 l 929

The author reports the case of a pril 8 / years old who had received numerous injunes in an accident Of particular interest was an injune of the public region which have die his rection of the next inside clevated the vulva as a \(\text{h} \) it is and turned it to one side ruptured the urelina about \(\text{a} \) can above the site of the meatus and sectioned the left corpus cavenous.

ine w men with salpingitis were unmarried. Three

sure diagnosis of tuberculosis

If the fever due to pelvic disease lasts for more

a ii 14 Hæmogl bin valu 5 of less than 50 are very sug gestive of a tuberculous process n th adneva

a 5 III 4t ousers atton

ALBERT F DEGROAT M D

MISCELLANEOUS

Dougal D Chroni Backache in Ganecology La c 1 1024 ECV1 1330 Formerly a vontan with backache was treated

A fistula from postoperative necrosis makes its annearance between the seventh and the eleventh days Th necrosis is seldom the result of inter ference with the blood supply from too freat de

the result of the fatigue of certain muscles due to extra strain placed upon them Chief of these mus cles are those of the pelvic floor especially the levatores and

The importance of backache in uncomplicated

the ureter m m tda g ous to the

e st

ı

-

قريبا لت Another factor in the chology of ureterovag nal mple ed The

operative necrosis there are or about tance

Operative injury occur in the dissect n of the ureter f om the broad ligament a step which is anatomically feasible because the ureter has a con d is seldom m E 13

endangered There is seldom any reason why a wound of the

useter should be overlooked but unless the operation

is aseptic the repair of such an injury is almost cer-

the use of local anaesthesia. Seventy five per cent of all of the seguelae of lumbar anaesthesia follow

quarters of an hour Therefore it is generally necessary to supplement lumbar anæsthesia by general

an to fail Some degree of infection always follows and to fail Some degree of infection always follows and to fail Some degree of infection always follows and to fail operations on women Urgent operations are comparatively rate in gyne cology. The duration of many of the extensive memory of the catenate operations is shoreer than three

than the others

The s te of the fistula is the scar in the vault of the

vagina usually to one side or the other
The tract is generally short and passes through

may be very superficial as a rule lumbar anæsthesia

preter and preterography

Fistulæ may be partial (a lateral wound in the

and its effect takes too long to appear

For the Alexander Adams operation a not too
deep ether angesthesia is indicated

Only parasacral and paravertebral anæsthesia

Lidnes

The samediate treatment of a wound of the ureter when feasible is re implantation or ureterorraphy but the ultimate results of these melhods are not encouraging. A stricture usually develops and even when the ureter can be kept permeable by distation the kindney suffers considerable damage, may

anæsthesia the headaches are sometimes very

it is always a certain method of cure

ter and four of postoperative fistula
ALBERT F DEGROAT M D

Pey F T C -- ~

It 1 r markable that w th regard to the choice of

cated than that of the gynecolog st Women are easier to anasthetize than men but their nervousness is a disturbing factor which limits

Inetabolic disturbances (diabetes) and the most severe anamas are not contra indications. If acadeats occur in the use of exceptional procedures (such for example as lumbar anasthesia) they cannot be attributed to the method of inducing anaesthes a because the indication for the use of this method was the severity of the patients condition

form anysthesia in ne under sacral anysthesia five under local anysthesia four under lumbar anys thesia and two under parasacral anisthesia Twenty four patients died the mortality being therefore 19 per cent. No fatality was due to the anysthesia. Lemon W S and M hie A E Ectopic Adenomy oma Postoperati e in asions of th Abd minal Wall in h S 1 1025 X 5

So many adenomyomata occupying unusual locations beyond the uterus have been reported that

tingui hing characteristics between the latter tu

The latter however are of rare occurrence and con sequently no cons derable number ha e been re

the pitheli thyp rtrophy or inva or the atou constituent is there becau the cpith i al

associated tuberculo is

Mille J A Case of Malignant Hyd tidif rm Mole with Pulmonary Metast ses Ed by th II J 924 B T Lib bugh Obst Sec 2 7

Miller reports a c se of malignant hydatidiform mole with p imor ty metastases in an u married still 18 to rs of age who cam to the hop tal degrees I the pule 152 and the respiration 34 When the patient was examined the bleeding very suddenly became uncontrollable and death occurred in a Iev minutes

At autopsy both lungs showed a number of

relatively thin. Its contents were typical hydatid

matous connective tissue core

In a search of the literature the author was able to find only one case similar to this HARRY W. FINE M.D.

Vogt E Gynecol gicul Y ray C reinoma (D gynack l g he Roentg n arcı om) Si hie; ih p 1924 R 31

The term gynecological \ ray carcinoma i applied by the author to car inoma of the skin and abdominal organs appearing after a radiation and

tinuous pressure had been added to the effect of the

The Dep nithal Trangenheum case was that of a nurse in the \tag tay department of a ho pital. The patient first deedoped militiple carcinomata of both hands. \text{Miputation of the left hand was followed by successive amputations of the forearm and arm Seven wears later carcinoma appeared in both hreats.

In the cases of ovarian and uterine carcinomata there was no certain indication that the \ ray was responsible for the tumors. It is possible that the tumor formation was favored by the change in the internal secretion consequent on the loss of ovarian function.

The previous and cations for \ \text{ ray treatment of myomata and harmorthages of benign origin are upsheld. That the \ \ \text{ ray can cause not only epithe lial but also mesodermal malignant neoplasms : indicated by the occurrence of \ \text{ ray sarroms and both sarcoma and careinoma after \text{ and both sarcoma and careinoma after \text{ ray care in the sarcoma and careinoma and careinoma after \text{ ray care in the sarcoma and careinoma and careinoma and careinoma and careinoma and \text{ ray care in the sarcoma and careinoma and careinoma and \text{ ray care in the sarcoma and careinoma and careinoma and \text{ ray care in the sarcoma and careinoma and careinoma and \text{ ray care in the sarcoma and \text{

great importance for the occurrence of carcinoma as is the stimulation responsible for the specific injury BRUENSER (G)

Mossé S and D ubrère Early Pontoperative Obstruction in Gynecology (Locciu on p. t-opér t repréoceen gynécol gt.) Gy & etob t. 9.4

18:

laparotomy are reported in detail. The condition occurred to ice in \$30 cases of subtotal abdominal hysterectomy for salpingitis once in t enty cases

tumors in the Bumm Halberstaedter and Depen

quently than any other gynecological interven

The obstruction may be entirely mechanical or due to infection In the cases reviewed there was only one case of purely mechanical obstruction. In this instance the small intestine becam strangulated by the opening formed by the observation of the round

the skin had suffered pr mary inflammatory changes from the pruritis and secondary infectious hanges from scratching and in Halb retactions case con condition is probably a postoperative obstruction

stipation
The diagnosis between postoperative paralytic

188

In all of the cases reviewed the occlusion was in the small intestine and with one exception was at the site of the operation

site of the operation
The prognosis is good if the obstruction is relieved

tion

nul crises fever a somewhat rapid but full pulse less marked distention and no change in the factes the

SAL ATORE DI PALMA M D

OBSTETRICS

PREGNANCY AND ITS COMPLICATIONS

Harding V. J., Allin K. D., and Van Wyck, H. B.
The Non Protein Virogen and Line Acid Values
in the Blood in Pregnancy J. Ob. L. & Graze
Br. Emb., 10 4 1971, 5 7

De remadonof the con protein autorem and une of values in, the bood of premaint women was for mir thor this to be of very great processous value is according to the author of this area of bit!

—increase for it. The authors de estimated the averanval resin normal premains in the toaxen as of later pregance, and in the case of our woman of later pregance, and in the case of our woman.

fore labo berms there is a lish rise in the values.

The unclaim values rise progress, vely throughout pregrams?

In the toxemus o proming the values are practical the same except that there may be a very light rise in the uncland value.

Ha ti B M times M.D.

Burgess, H. C. A Clinical Consideration of the Contracted P tric. Am J. Oct. - Greet 0.1 7.1.

be ter wo k would be done if governly practitioners were shown that a simple distinction will mee their requirements.

A review of 2,000 cases at the Montreal Matern How-thal shows that in 1.8 I cases in which the cony-rate year was no come of these was 500, taneous, while in one is, even three of those in which the colymnia year was between 3 5 and comcarried Littlerence was precessive.

O 196 a delivenes in the period from 1006 to 10 3 103 wer those of women with a commercial pelva. L. 1.45 (, per cent) of th la te, de-Frets was pouts come while in 4 3 ("t" ber cen) som operative procedure was required. In the 166 cases in which delivery was exected by I reeps there were two me email drawb (on, de to cardiac fallere and one to serso) and there-one turnile death. Version and extraction were doue in extr eght case, with one ma erail doub from hamo thate and twenty-o e mianule deaths. Casarran section was do em ti cases with five ma ertal and 2 deams Three of the man rad STEE LILL dea. b were de to seras one to card_ 1_lare and 0_e to \$_____

Leven's cases in which labor was in wed there were no ma emal databa. The infantal mortal a in the proposition in the proposition in the proposition of the proposition in the proposition of the proposition in the propositi

condition is probably a postoperative obstruction

stipation

tion

The diagnosis between postoperative paralytic

cavity

In all of the cases revi wed the occlusion was in the small intestine and with one exception was at the site of the operation

The prognosis is good if the obstruction is releved early I in the cases reviewed there was one death. The treatment consisted in rel ef of the obstruction and measures to combat the perinoral infection. All of the cases were operated upon under spin al nars in a necessary to use thely dolined. The patient was placed in a semi-Trendelenburg position. To prevent postoperative infection the intesines were washed with ether and dired and a Mickell ca drain was inserted. Postoperative shock was releved in the usual manner. The gauser from the Mickeller the drain shell sittle from six to nine disk. Says and

SALVATORE DI PALMA MI D

OBSTETRICS

DECKANCY AND ITS COMPLICATIONS

Harding V J Allin K D and Van Weck H B The Non Protein N troten and Uric Acid Values in the Blood in Prednancy I Old & Go or

B I Emp 1924 XXXI tot

average values in normal pregnancy in the toxismias of later pregnancy and in the case of one woman

The une acid values rise progressively throughout

In the toyemus of pregnancy the values are practically the same e cept that there may be a very slight rue in the une and values

Hanney R Marrowne M.D.

Burgess II C A Cl nical Consider tion of the Con tracted Pelvis Am J Obst & Gv ec 1024 vin

Privileged to attend for a number of years the routine work of a teaching maternity hospital the author was greatly imp essed by the importance of the contracted pelvis From the emergency cases that enter the hosp tal the conclusion may be drawn that the death of the fetus and the injury to the maternal soft parts in cases of contracted neivis are due not so much to an operation poorly performed as to a poor selection of a method of delivery

In the author's op n on the classification of the types of pelvis which is used at the present time is so c mplex that it I rarely if ever grasped by the student du ing his college course and is never rebetter work would be done if general practitioners were shown that a simple classification will meet their reconcements

the consugata vera was between 85 and 75 cm

deaths were due to sensis one to cardiac failure, and one to sarcoma

In seventy cases in which labor was induced there were no maternal deaths. The infantile mortality in th s group was 15 6 per cent

E WARD I. CORNELL M D.

Litzenbe g J C Unruptured Interstitial Prog nancy with an Anatomical and Histological Report of an Early Case Am J Obst & Gy c 1015

of the uterus presents a hemi pherical elevation at tached by a broad base and pointing upward out ward and backward. The direction of growth is accounted for by the normal course of the inter stitial tube. The round ligament was seen arising

u nes. He believes that from a churcal point of view a d finite advance would be made if it were generally

great majority of obstetrical cases in the United States will be attended by the g neral practitioner

1

nated in the tube itself probably as the result of a

the same as the opposite tube (15 mm) and re mained unchanged until it reached a point just below the ovum capsule where it suddenly enlarged to 3 mm. As there were several villi in this d laired nor Levy W. E. Interstitial Pregnancy with the Report of an Unruptured Case. Am. J. Ob. I. & Com. 19.5 ix 63.

The patient whose case is reported was a woman 27 years old who had been marned about five

several days before the pain she became nause ted and vomited. The pain was not severe enough to cause faminess.

use faintness
At operation, the uterus was found smaller than

tached ville ville were seen a so in C mach with the

in the fundal region. In general appearance it was a perfect counterpart of normal utenne decidua except that in places it was bamoorbagic and some of the cellular elements, particularly in the glands.

ovum sac The ovum vesicle was distorted irregular and torn possibly as the re-ult of the pressure of the

numerous broken in to a election e

tound breem 1, so m in 10 12 m ... of the p egns t interst tial tube and in the oppo te non pregnant intramural tube. The bleed ng or gi

A young woman who h d been operated upon for attra uter ne pregna cy with hamope itoneum showed several months later the signs of a new pregnancy. The .evently and nature of these signs

TT

suggested that this pregnancy also was extra

At operation a uterue pregnancy was found. The uterus was enlarged cheely toward the right sade. On the left side there was next and tenaction and tenace and admission of the monetum to the sear from the previous that the sear from the previous of the sear from the sear from the sear from the sear from the search of the sear

Schreiber H. Simultaneous Pregnancy in Both
Tubes (Gluchzeit g. Schw. ge schaftbeider T. be.)
Z. i. lbl. f. Gyn. (k. 1914. zl. 111. 2. 4.

The case reported was that of a 33 year old woman who was admitted to the hospital with a diagnosis of tubal pregnancy. At operation the uterus was found to be the size of a fist and soft. The left tube ao

which was normal contained no corpus luteum

Both tubes and the left ovary were resected the

uterus was fixed anteriorly an appendectomy was done and the left ovary was implanted in the space of Retzus. The patient made a smooth recovery Histological c amination revealed a pregnancy in each tube.

The author assumes that hoth ova originated from the left ovary and reached the tuhes by ex-

Powil wicz and Morace Fetal Retention and Tox acmia of Pegnancy (Rétentio letale et t éme gride e) Gy & 1 br 04 x 28

gr id q e) Gy &c 1

er I weeks later

To throw more light on the subject the authors tuded to 8 uses of albummuna seen as the Ban le locque Clin c. These are divided into two groups in the first group which contained twenty three cases the albumnuna disappeared or became neg group which contained seen the second group which contained seen the second group which contained seen the subject of the machine seen that fets up autic contrary to what is generally entered fets up out contrary to what is generally

and the stage of the pregnancy at which the death of

of fetal retention or becomes aggravated during

toxemia of pregnancy

In conclusion the authors state that following

2 nc a b min may disappear from the urine permanently or re appear in only small quantities during labor

3 The alhuminuria may continue until the expulsion of the fetus even when the period of retention is quite long. Throughout this period the blood

t eclamptic and given prophylactic treatment

Hunner G L Ureteral Str cture in Obstetrica with Special Ref rence to Multiple Abo tions (Renal) and to Pyellits of Pregnancy Am J Ob t & Gy & 9 5 11 47

Most ureteral strictures are due to an intrinsic inflammatory condition of the ureteral walls. While it is probable that some of them are the result of

gastro intestinal tract the cervix or other parts of the body with a chronic suppurative process

Factors indicating that di tant focal infections can cause wreteral stricture are (r) the almost unversal location of the strictures near groups of lymph glands namely in the broad ligament region and

i

ì r

previous prep

1 e 1 for the preteral condition until the original area of h tant focil infection has b on eliminated

EDVARD L CORN II MID

LABOR AND ITS COMPLICATIONS

Rucker M P The Use of No ocaln in Obst trics IM JOB COLOR TO THE TANK OF THE

The author's expert nce with sacral anasthesia ons: ts of 103 case such ling one case in whi h a vaginal ox arean section vas done. Three wer cases f incomplete abort on in which th

s i temenstrual or menstrual disturbances Bl fder s mptoms occu 1 00

I II I lace to pravia Sacral anasthesia wa u ed to intro luce the bag but spontaneous deliv ty occurred without næsthesia. In the remaining nerty four tases sacral and thes a was used in the delivery May / h n

Usuali the pelv (and 1 in countl

u ii uii an i c using a d sire to void specially if bladd a symptoms h ve pre jou by been

It is probable that in mot cares fin 1

Lille me tal fercent ro ocum solution 1th 5 minims of adren li The inject on had

lutts as

--- ·

e ent su h posure tr in the rr suddenly

I u nary intects n the pre n Pyelits due rumanily to stricture m y cl r up spontaneously en though the kidney a d u eter are under the aid d burd n as ocusted ith a preg na cy Some [11 nts th a pycliti of p egnanc)

and wrete al st ictur give a h t v of pyelt in

to make of adrenalin had been given subcuta neously the blood pres are gradually rose. The Da t ent's physician informed the author that he had

> ı. during the first week between oo and 102 degrees F but there were no symptoms of peritoniti

203

sloughing occurred

By the eighth day the exudate on the uterus had largely disappeared leaving a red surface uterus then progres welv retracted and the adnexa became less swollen. The loch a remained normal throughout

From the thirtieth to the thirty third day there was an apparent menstrual flow with visible con eestion of the uterus

By the thirty seventh day the suppuration on the surface of the organs had subsided under dressings saturated with a culture of lactic acid bacilli con

ho sever a variable. In the majority of nationts there is a cessation of the contractions or at least a dimi ution of the r force for from twenty to si ty DI I COR MI M D

Guéni t P T mporary E teriorization of the Uter us After Caratean Section and Its Replac

minutes after the ini ction

The most constant f ature of sacral anaesthesia is

d the absence of pain There is complete relief

the market rel vation of the perineum and cervis

from noun. The is true whether the uterus contracts

or not The effect upo the uter ne contractions

ment in the Abdomen After Forty F
(E ter rest t mpo e du uter
teg (d labd m u 45)) Rev 445) Rev f c 1 4 51 01 1 581

inrough the cul de sac an i the lower end of the ab dominal incis on Strip of gau e ere place i in con tact with the posterior and anterior surfaces of the

Five weeks later the uteru was mobile and in good po it in the die a seemed no mal and the patient felt p rfectly well LET F DEGROAT MD

t o sucti

Ih cl

I rt first conc t d the i! a of l v ng th uteru ut f the abdomen wher the ound could b ir d dir ti until the inf ci sul i i d It import ti know the eact on of the ut ru

to uch train t lut sin t the or gin I eport an

lon

CASES

spontaneously in tive hours and ten minites. Two previous cervical cassarean sections had be n per formed in each instance because of an alarming towamia.

In the author's opinion there is no need to besitate in the performance of the low transpersioneal operation b-cause of distruct of the subsequent scar Apper F. DeCourt M.D.

PUERPERIUM AND ITS COMPLICATIONS

Adair F L. The Influence of Diet on Lactation

This arti I is based on a study of more than 400 cas a which the author divides into four groups according to the diet received by the mother. In

dietary principles. In the four other groups the amount of fool and the quantity of protein carbo hydrate and fat inge ted at each meal were record

_

the average for the entire group but also by the average for the subgroups. The average day of a section ranged from about 2000 to 2 400 calories.

The next higher calone intake was that of women on the balanced ration the average daily intake ranging from 2 100 to 3 100 calone. On the high carbohydrate due the average daily

intake ranged from 2 700 to 3 300 celors s.

The calorie intake on the high fat d et w s much higher than that of the other averaging daily from 1,300 to 4 000 calories.

indu ucing the quality of mother's milk there seems to be good eason to a sume that ice tain factors tend to depree a and others to stimul to the seer tion of the breasts

In the cases studied the age last r in relation to milk product on could be eliminated as the average

influ ucing the quality of mother's milk there seems groups but was least among the who e motters

upon the mammary secretion. It was obvious that

Very commonly generalized military tuberculosis emerges from the association of gestation and genital tuberculosis

There is nothing specific in the local symptoms.

There is nothing specific in the local symptoms.

Tuberculosis may be su pected whenever inflam matory disease accompanies pregnancy e-pecially when the patient presents signs of the disease else.

Fruhinsholz and Feuiliade The Relation of Genital
Tuberculosis to Puerperalism (Tubercul c
uté o crell et puerpéralité) Gyné i b i

nancy and tuberculous lessons. In such cases sub sequent generalization of the suberculosis has not been observed.

genital tuberculosis

024 X 3 3

Cas s in which pregnancy has followed medical treatment are too few and p orly controlled to receive consideration but a number of cases have

normal pregnancy and labor and the re establi h

logy hich

From these surgical cases it may be concluded that in certain instances women cured of g mital tuberculous by operation may become pregnant and gave birth to normal children without danger to themselves or the infants

In the past gestation and gen tal tuberculous

continuously until operation or autopsy several months later. However in these there was the possibility that the tuberculous infection instead of developing in the puerperium, followed an ordinary

postparium infection
The association of gonococcal and tuberculous infection is not unusual

ALBERT F DEGROAT M D

Franz J Th A

cı

Gestat n m y app oach or cor time to term even in the p esence of xtensive genital lesions. Under these circumst nees the infant usually dies of congenital tuberculosis.

As the result of the local d case or its general za t on ab riion is common

Death may occur before the termination of preg nancy d is usu lly attributable directly to the tuhercul ss However in one case it was due to rupture of the uterus favored by the local les ons Gono rhor 1 1 1 1 -

u unutes in hist stage of its ascent is

puerperium the ascent of the infection usually follows the anset of the first mensionation

In the Frankfort University Gynecological Chine during the period from 1918 to 1923 there were seventy time proved cases of a c ning gonorrhora In fifty three ca es the condition occorred after del very at term and in thenty six after abortion The first stage occurred thirty times luring the carly tart of the puernersum and once during the latter ra t In nine cases the second stage or urred during the early part of the puerwroum f llove e delivery metastatic infection particularly if the infection is

bloo I horne

Con may be the cause Iso of second in harmor thraces in the puero rium a thout r tention of the placenta. The author has seen three axes of th It may be assumed that the gop m r organisms which fin I their way into the uterus 1solve the phys ological thrombi in the placenta and I wer the congulat ng po er of the blood

If and marition has been set up in the cental tract by meta tasis the p oceas may rate derietly as though the infection were primary in the g nual tract Linically an endogenou metastati infec ton may resumble in every way the e toe noise

1 arret I rom the chaired p int of vew the follows uggest an en log nou met tat e grip infection (1) improbability of ector nous primary infection (pontaneous d livery without inter al

and in the second stage in from 5 to 10 per cent I rimipria, and nomen a 1th incomplete abo tions are e purally pred posed to the recent of gon r threal infection

May r A Meta tatle Puerperal Diseases Parties larly Those Following Grip (L be meta tot he I u rp alerkrankung in besond e nach (po) trhfterak var 163

I perpend infection may oc ur en log nou ly 1 4 secon fary meta tasis of a primary intection in some part of the body other than the central tract. The lymphatics of the throat in parti ular man I th

Int rmittent Irrigation of the Peratzi P

In Irai pinin the tretion of intra ut trac et gate n n1 nt nu us la ogo of the endometrium ith h infecting schitt as has been cattle I to far one rally 1 a a of he ang f inf ction in whi hit spo bl by loc I treatment n th ir primary to d str & the rafe t ng bact I cus In the pur p ratuterus the di ast e power a every active with many fe ment out nelin the lo his ad n are in the d lopm nt of

In a case r porte i by Ma er in which I live to was spontaneous and the voint rall vani mation the puerperium was at test normal but in the furth eck a streptococci si ethroat i el ped this hensed fatally with ge or I sees that no shawed beginning permeiriti and metr kimph angitis with ut involvement of the n ! in t ium

Other cases observed in th Tuebingen Clini

MEWRODN

than in the average cases. These children of mothers with a narray pelys died sooner than those of mothers with a normal nelso

The postmature children who were delivered with

and postmature infants lying in the first month of I fe the follows o facts y ere established Small premature infa to do not live as long as

Lipon investigation of the factors favoring birth traumata transverse and breech presentations we e found common in the cases of premature and post mature infants dving du ing the fie t days of life The lives of such infants were shorter than those of infants presenting by the head

Twins were born prematurely more frequently than single infants and died sooner than other Diemature 1 fants

Narrow pelvis of the mother was found in 8 per cent of the cases of premature and postmature child en-f om 8 to 10 per cent more frequently comparison of the cases because of the preponder ance of unlayorable presentations. Forty eight per cent of the postmature infants who died were born following a labor last ng longer than twenty hours Children born frer a long labor survi ed only a very short time

7 determine the influence of these factors upon the

Latetic child on had a shorter duration of life than others Lues was demonstrated in a per cent of those that died

In newborn infants and in adults y ho have suf fered injuries of the brain bronchopneumonia de velops after the third day. It is probable that in some cases the bronchopneumonia of newborn infants ith brain injuries in the early days of life is analogous to that occurring in adults with injuries of the brain Giarges per (C)

GENITO-URINARY SURGERY

ADRENAL KIDNEY AND URETER

Hubbard R S A Comparison of the Results of Laboratory Examinati as in a Study of kid ney Efficiency Cl fto M B II Clft N tok 1924 x 137

In a number of atticles the results of the phenol sulphonephthalein test have been compared with those of other tests of kidney efficiency age amounts of urea uric acid total non protein nitrogen and creatinine in the blood vary in a definite way with the values of the phtbalein Creatinine is not appreciably influenced by the det but both ures and non protein nitrogen are found decreased when a d et low in protein is led for a long period of time before the determinations are made

Fohn Berglund and Herrick b

unc so t

c i ā 77

my snow renal damage but not

the d gree of such impairment Even when the results of all of thes tests a c available it is often difficult to determine the effi ciency of the ki in v as i equ nilv the re ults of the various tests to not agree No ne test can serve accurately as a measure of all d grees of kidney damage When the le ton is very sev re in reases in the blood creatinine are m 1 1 f

locion rally

ent t alon 20

nh

cientl et i in iti a det en extent the auth for

of CD H tat S WD M rtin W F Phy loth rapy in R mal Tube c 1

al 1 1 1 9 4

493 The problem of alt with a thi the sthe treat ment of bilat al or umlat I renal tub cul s when on ration a efused or is nadvi able. The au

thor d scusses diet heliotherapy disthermy and by drotherany

The diet must be balanced and give maximum nutrition with minimal demands upon the kidneys It must be rich in calcium and iron salts and of suff erent bulk to prevent intest Sant h

and been

isy means of d athermy heat may be localized at any des red point the curative effect of fever being thus obtained

He drotheraps as used for its analysis and tome effect

Martin does not claim that cures have been obtained by these measures but states that their re sults have justified the use of such routine treatment

H W PLACEREYER M.D. Helist oem J Staphylococcus Pselitis Particula by

Its Chronic Form and a Ch racte istic Con cretion Formation Present in the Condition (Burgru h in dr St phyl kokkenpy i to b so drat ihr h che hom und b ne bid selben ok mmed gartge kak m tbld g) iki k g S ad 94 S pp VI

In an extensive acticle base i on h s onn case of th pa t t o years and the repo ts in the literatur for the la t ten years the autho d lococa

ant and staphyloco ci in 3 per cent They red minince I the form r was ma h

mo maked in 1 males th n in male. In the sof muxed infections the riginal infecting organi m was usu Hy the staphylor reus the colon b cill s ap pear ng as as condary invader F equently the colo bac in entirely replaced the st phylococti a fact

loce b lev ant g r

of suma Charcatty the cases of st h

el ti ır n s of Bacterial studies revealed staphylococcus albus in

bonate and their organic components almost exclusively staphylococci. The latter were distributed The conservative operations were followed by healing without complications or fistual in the forty three cases of nephrectomy there were four deaths two which were due to the anarsthetic occurred without he first three days one occurred after twinty seven days from urgema and one occurred at the end of two and one half months from

, k 1

stricture postgonorrheal changes in the mueosa

The treatment is directed toward (3) peoplay lians (3) the administration of urinary antisepties such as urotropin solol and boric said (3) the use of neosal-tarsa autogenous vaccines and pelvic irrigations (4) measures to change the coost instoned of the urine and acidify it and (5) the treatment of complications such as prostantis focal safections unitaris retention, and stones.

LEO M ZINNERWA M D

R tschitch J Late Results of Operations for Renal Calculf (S r l és litats él g és des opérat nt l lith é ale) J d l més l h 19 4

outt b

jatient e between o and 40 years of ag. The generally concentrate tunne has a merea educative and a ed sediment compose i usually of many unants are apt not to consult a physician or they go to a different one when recurrent trouble develops WALTER C. BURKET, M.D.

Roncoroni I Expe Imental Research on Late Su ture of the kidney (R he sperimental Il sulva tardi a del re e) i h i i d ch 1924 x

The author perform 1 rp m o 1h

ple subcutaneous rupture not sutured (a) subrutus neous rupture with simple secondary nephororaphy (5) subcutaneous rupture and secondary nephororaphy with resection of the rupture line and (4) subcutaneous rupture secondary nephororaphy with ow without resection of the line of rupture and with nephectomy on the oppo ite's de The following conclusions are drawn in

Sulficient extent causes marked changes to the

organ

The lessons produced are loth progressive and regressive. The sed the latter type reach their main a main at the site of the ruptu e where there is generally a zone of diffuse necrobiosis of varying depth At a distance besides variable regressive changes

The sixty seven peration perform d f renal

ι

py lon ph ts hyd onephross and pyonephrosis

are frequently f und. The cause of these is to be

Fronstein R Compileations of N ph ectomy (Uch r komplest on h t dr \ phr storne)

Zi h f t l Cl r 19 4 x11 st

Injuries to the duodenum when not noticed are almost always fatal The same may be sait of pressure gangtene of the colon due to the u e of the spe ulum. When a ki lnev which is to be removed is firmly attached to the inte tine by adhes ins the intestine must be resected

Int stind hamor hages are r latively rare. Fatal cases are unknown. Injuries to the fome of the disphragm are also uncommon Perforations into the r | ur | cas us are more frequent Il they remain unnotice I the progno is is very unfavorable. Im

of the renal pedicie is impos ne t that no t c essars to use a clamp. The clamp may be r mo ed at the ent of thenty four hours. The ur ter should al 1) be Igate! separately In tute wosts it should be will be rese tel Ly a h n this is done h tula may level t with or with of the escane of urine and ound afe tion A cossory es el of the procedure that will help in these case Ea ly over ation b fore the function of the oth r kidney has been input d by nephrotoxins etc and the avod ance of true injury from the saxsthetic are th mea ares advised Syst mat examination by th author sho ed that the unne of almost all patt mes on whom neph ectomy had been carried out con taine I blood during the first five days after opera tion indicating that the other kidney h d b en mmred

Pentimalli F Physiopathological R sear h on the Moto Function of the U eters (Rie h file. patol giche De funs ne m t dell uses St me h! 10 4 L x 1 4 7

Pentamally reviews the investigations upon the

SIONS

that of 5 cm of hat r

2 Un ler normal conditions activity of the cir ular muscle fib is com a into play when the pres ure within th ureter is between that of ro to is em el sater

hh h f

quen e of the c ntractions and often a loss of ti peristalti character of the contractions. If hen the o cu s t is necessary only to d minish the pres ure to it original level to restore the regular peristaltic fun t on

stump of the uret r. Others is the urine may run back out of the blatder I'ven ex 11 n of the enti e ureter de not al a spe ent tisse e trence

The b ha for of the oth r kt in a re con ibl for a larg gr up of p top r ti e c mpl cati as such as any i hamaturii anl urama Th ir occurrence in ases in whi h thorou h xam nati p of the mus ular strata b t is ab ent when there i marked hypertr phy or hypertrophy with d latation of the lumen

6 In cases of strictured ureters a ith slight byper

15 Caffeine in a concentration of 1 50 000 in creases the freedency of peristaltic mixements as well a the contraction energy. In stronger concentrations it always has a stimulating effect even effect the action of attorine. Will blue NAI.

Marsella A Diverticulum of the Ureteral Orifice
(Veber Ur termuendu g -d ertikel) Zisch f rol
Cli 19 4 xvi 137

disclose I that the diverticulum ontained the intrarural part of the ureter and was formed partly of the musculature of the bladder and partly of that of the ureter. Theop unit of the direction units the bladder and the opening of the ureter into the

.

statue movements may occur as before at a pre-ure lower than the normal and may differ from the normal. An acrease of plessure is supported in a

supernumerary ureteral aniage an abnormal of en ing of the oldhan duct or a folding and con triction due to redundance of the formative trans the photomicrophic ranks.

I H Proce (2)

Rub tius II incrusted Ulcer at the Ureteral Openings (1) nhrut t i schwu an den Harolete mue du gen) Zi h f f l 0 4

55
to a ling to I a hk, the deportrue incrusted ulcer must be lifterent atel from the superfect ulcer timerasting systiation. The form nare found lift is the humendate systiation of the present opening.

and do not merge a 1 ov r the entire trig n until the r later stages

juency of the intractions an I decreases the college tag.

11 Nicot he in a oncent ation of 50 000 in

polis it e peristalt a movem nisa e at first sting by excit dout afte from tiftee to thenty im utes a e completely par lyzed

બો ા િ

,

1 5000 and 112500 se u 1 th thythme acceleration 5 const t and the durat of the act t n 1 ager

catheter to one o tho days B caus of the infection the blad for is framed suprapublically

SCH ELE (7)

BLADDER URETHRA AND PENIS

Smith II Stone in the Bladder India M G

19 5 1, 18

suprapulate wounds and drainage of the unitari

Day R 1 and Martin H W Directicula of the Lrinary Bladder Feature Observations J Am V Ass 1925 1 22 268

As a rule two etiological factors are of erative in diverticula of the bladder (1) embryological de

obstruction.

ŧ

3 Surgical relief of the obstruction is necessary in almost every case

Th. ...

3 Excision of the diverticulum is indicated in cases of will developed sacs of moderate or large siz if drainage is poor

Costantini Bernasconi and Duboucher Dissecting Cang enous Cystilis (Les cysties g eté euses dis équante) Res d ch Par 19 4 alui 190

Morgagns the first to describ the separat on of

high I used by the termans applies special

The etiological factor gi en u th eported cases
were (1) urinary retention associated with pel 7

ent dra nage

In cases of diverticula of the anterosup nor dom with thick muscular coats the ornice is a most im

through the female urethra with greater ease. Of the fifty nine women twenty eight had a retroverted grand uterus

The mechanical pressure theory maintains that the gangrene is favored by a disturbance of the circulation. Injected caustics produce a definite ne cross which secondarily becomes infected. Cather terration in unnary retention flavors infection ninety one cases from the literature. In minety cases there were thirty one deaths. The condition is more

us pervic

of the

of the blad let is greatly reduced Gunard has observed intermittent pyonephrosi

WALTER C BURKET M D

toneum became gangrenous and perforated

The mucosa may be di sected off by an extremely
virulent extending infection or by a submurous

conditions such as urnary ciention cystitis and retroflex on of a gravid uterus may add to the symptoms. A cystoscopic study has sel form been made Bactenological e ammation usually shows the an acrobic o ganisms of gangrene

In the female the treatme t after total el muna tion of the membrane consi to only in antiscotic Bruni C and Colombino S Electrocoagulation of Bladder Tumors (L eletrocoagula ne dei tumori d lla vessica) Rf ma m d 1924 1 118

ı

Voelcker F The Treatment of Urethrorectal Fis tula (Zur Behandlung der Hanno hrenmastdarm fast 1) Zt h f U el 19 4 514

The author reviews the variou causes of congenital and acquired communications between the ure

a in Sul rapub c cystostomy is the procedure of choice

If no part of the membrane ha been eliminate i

the diagnosis s difficult. The t tment

phritis pyonephrous etc) are treed as indicated.

The authors report in detail three cases of dissect g gangrenous cystitis and give abstracts of

will explain some phy informal and physiopatho

The exp rements were performed on dogs because these animals are subject to the same prostate by pertrophy and the same involution of the sexual oreans as man

gland the procedure is safe

most part though a suprapatic ustula and the faces e caped through the wrether and the pencel tound to leker e table high remperary artiful amus in the sigmoid. Direct no of the return and suturing of the firsh ned full with first unit continue of the firsh units of the sigmoid.

was then introduced in a retrograft mining so that the lift wither of changing ward of wing a bouge in the arther after the thrive which the avoiled. The met in all wound and there to wither it fattle hald die the patence of the webbra

GENITAL ORGANS

3 3 5 W

I DI B IOO RIDE

ı

Di charging the vas deferens into the ante ior urethra and thu creating a direct derivation of the GENTIO-UKINARI SOI GER

. 4 -1 6

He urges the r moval of all of the infected seminal tract—equidymis vas deferens and sem nal vesicles H. M. Plan, Ew. vez. M.D.

MISCELLANEOUS

Che nisse L Intravenous Injections of Hexa

To combat postoperative urmary retention the intravenous injection of a 40 per cent solution of urotropia is employed routinely in certain German clings especially genecological clinics. As reports

water in 1 e maquel 1
partichase b en singhbed dry infiltration with a local
anisth itel made along the base of the in trument
fin assistant u es the cautery and the operator
burns through the orifice with a rotary motion of the
instrument. The average time of burning is four
seconds.

In 83 per cent of the 175 cases thus treated com pl te rehef of symptoms was obtained in eight weeks beventy pr cent of the tight contractures were cured. Pr state carcinoma seemed to be better ared for by the cautery pu ch with perineal radium implantation and deef. Tay therapy than by the angesthesia by this treatment. In 200 cases in which logic then used such injections to prevent post

case ter the

treatment

articl 11 set op Tatel upon 1. **I spinal area
thesa C osh follows Youngs et changus for per
meal pro tat ctom, A pr him nary cr to cope et
meal pro tat ctom, A pr him nary cr to cope et
meal pro tat ctom, A pr him nary cr to cope et
mingth at in in outning. Too be a soppose d to
pr king th bil dd r fiter operation b cau of the
danger of a md r p hamorrhage after its run oval
and the dr gr of i f from Postor grative complex
as cond er har rhage stretut of the united
te to ur thral fistul
to the condition of the conditions of urine rhage
stretute of the united
Joseph S List strate WD
Joseph S List strate WD

Dill n J R Tuberculo is of the Seminal Tract
J L 1 924 4 9

The auth rr views the r ports of several series of cases and he sthat very oft nepd dynectomy or castration fells to remove all of the rectude seminal tract

pontaneously after op ration s thout any treat ment 'Acco ding to Quick' pontaneous urmation occurs no fo per cent of cas sa filer surpical intervent in Resemberger reported that 1 occurred in 60 per cent of the cases in which a laparotomy was pe formed and in 594 per cent of those 10 shech a signal operation on as done Wenne e state the tit occurred in 55 p. r cent of oof gynecological cases We a unmiston 1 pt centred mechanical as by

a large tumor r 1 pl cement [especially of the bladder] anothopin is infell to 11 Unitars retention ondays to viginal op rations for ut not encore is 10 effectory to uttorpton. We henzed reported that in forth to occess if can et of the corvix operated upon agnable, infraw nous impetions of untorpoin were effectual in fx only slightly beneficial in eght and ent by without effect even when repeat end of the outs n e. In fifty one ca cost agand loper only for the outs n e. In fifty one ca cost agand loper only for probability where effective in \$5 per confidence in the probability of the confidence in \$5 per confidence.

We find it reported also that in 30 cases of post ope aft e 7 tento 1 after ab dominal and vaginal pertations cloud by the forty two cases of cancer ted the 1 pect ons were eff citive in 81 per cent of an att in 18 flowed the tripection in 87 per cent of the 136 vaginal partotom es in this se ies an 174 per cent of the 136 vaginal of grations

500

of from 0.33 to 1.0 or 2.0 gm. This usually causes a mild catharsis. In some cases very active catharsi may make it necessary to discontinue giving the drue.

The preparation under di cusson is more poseruli as a germedice and less tout than any substance heretolore suggested as a urmany ant septic. It is chemically stable and non intrating to the unrest tract. It is exceeted by the kidney and is p tent in the unnary tract in sufficient of correct prize in the unnary tract in sufficient of correct prize in the unnary tract in sufficient of correct prize in the unnary tract in sufficient of correct prize in the unnary tract in sufficient of the unit
In the early technique \ ogt inj cted intraven usly from 7 to 10 c cm of a 40 per cent unotropin solution immed ately after the operation. Sub-equility

Jone S G A Method of Demonstrating Tubercle Bucilly in the Urine J Am M 4st 1924 ixxus, 10 2

3 10 8 c cm

for four days

Schnab states that to pr vent complications small
initrovenous injections of gratropid should be given
only after unavailing attempts to combit unitary re

gravity

The Ziehl Neelson st in is employed

Jose B b Eise/staedt M D

Locwenstela E A C niribution to the Bacteri ological Study of Tubertrul sis of the Urcenital Tract (Bet ag rum b ken lossen u N hw s dr U g artal i be kolos) Zis hr f dC Ar v 4 x 45

To the demonstrate n of tube cl bacelle in the sputum and unpe the author recommend cultural

methods

To kill the a sort ted bacteria he uses not antiformin with which he has a ually obtained poor

Leo

The lack of an efficient and ad quate internal unnary antiseptic has led the author to pre ent a

Of therey tuterculous sputa all vi ided a pure

1 1 1 1 1

n - T

n "

a tvi co again t its use as a functional test in any scute inflammator; process becaue the liferated f rmaldchy le has an irritating action on injured

LAURES PREMIUMA \ tuberculous kidney 1 a le nenet ki heey thich 1 (unctional) are singheren kit capabil of ex cetting uritrop e en then it cannol excrete phenol ulphonophibalen or methy kne blue and the care of disinggration is un abil to with tand the care of disinggration is un abil to with tand the care of volenty. The refore the without resist ng more or less volenty. The refore is important to rul ou ut unart tube uloss before the care of th

intim ex ri treas rapid

wheth r the p to nt requir op rat on or not

Chute A L. D fficultie n Dist naujsh ng Between Urina y Stones and Calcified Abdominal Glands Ro to 1 1 C S J 9 5 C C 15

The author reports a group of case in which the path its symptoms and the primary \(^1\) ray picture suggested uncertail calculo but further investigation by roentgenographic catheter and pyclogram proved the suspicious shado as to be calculed abdominal policing and the suspicious shado as to be calculed abdominal policing land.

The pus and blood in the unne in sont of these cases proved to be due to pyclit. The condition cleared up promptly on treatment. The author be lieves the calcified glar! do not in this elves cause symptoms, but that the pain is due to acutely in

.

Lau I T Recurrent Calcult in the U nary Tract

Lau urges a most thorough study of cases of

freetons I par storm sor traums an 1 y (the room dition ausing fre bur upon the ureter should be rebyted

v (1) (1

1

Bugbee II G and Wollstein M The Surgical Pathology of the U lnary Tract in Infants J

In 4 203 autopsies at the Babies Hospital New York the folloting anomalies and conditions were found

r Fused kidney three cases

6 Nephrolithiasis thirte a cases Many ind a mite coltes in aniast may be due to it is caus 7. Pyonephros 5 no cases In two cases 16 two cases the condition was unulateral. The condition was caused by an impacted of integrant of the versions are consistent of the version of the condition was caused by an impacted enlargement of the version of the ver

B Hydronephros s forty four cases Tewer than one third of the infants with this condition lived longer than sax month. The mot common cause was a valve formation of the mucous membrane forming an obstruction to the outflow of unite from the urreter or from the bladd r. The next mot

cases the lower poles were united. This type of anomal presents an early palpable abdominal mass and is associated with anomalous vessels and uret radiculation.

hamaturia or persi tent pyuria

SURGERY OF THE BONES, JOINTS, MUSCLES TENDONS

CONDITIONS OF THE BONES JOINTS MUSCLES TENDONS ETC

Bloodgood J C The D fferential Diagnosis of 1 erl ost al Bone Lesions Rad 1 ty 19 4 m 432

Most periostical leaions both benign and mahig nant attack the shaft rather than the epiphys is hile central leaion, are almost equally divided be tween the shaft and the epiph 1. Fracture is occasionally confu ed with execont but except in the late stages when the diagnosis presents no diff collification 1, very unusual in cases of perio teal sar and neek of the femur During 1 f both conditions were diagno ed as osteogenic sarcoma the true nature of the growth being discovered only at au top y CRESTER C SCHNEIDER M D

Kerr J R Invalidity from Chronic Joint Disease
La c I 1024 CVII 12 7

Figures obtained from the Ministry of Health England show that chrome joint diseases cost about \$4.800.000 a year in sick benefits and about 1.500.000 weeks of work a year.

The great majority of person with chronic joint disease are over 35 years of age and 80 per cent of these give no bistory of acute rheumatic fever. It is therefore concluded that person who had the acute trouble in youth are not predisposed to the chronic

t to not have be write used vet vil any

sarcoma

A typical case cited was that of a 48 year old

Bey H L Errors in the X Ray Di gnosis of O te ogenic Sa coma 4 S t o 4 1 73

The author tates that in the cases submitted for registration in the regi try of sarcoma of the long bones which w s institut d by Codman the erro in

r admy to treatment. The knees were very cau t ously straightened and intensive physiotherapy including heat was administered to improve the blood supply.

About one in every too 1 orlang women between 45 and 55 year of new sulfer from chronic joint trouble an Irt they are not treated early and proper by many of them become a charge on the country Patients in better I nancial crumstances often prove not much more fortunate because they waste their time going from one place to another trying deposing cau e such as pronated free feet factors and the such as proposed of the such as provided the such as proposed free may be four I A history of trauma 1 often obtained

In s lected cases especially in laboring men symovectomy is indicated. Through a split patella incission the entire suprapatellar pouch with its hy pertrophed villou symo in 1 excised in one mass.

ktowin in 1 operable cases roentge ray a d ra h m t atme t comb ed with Colysto 1 may be tried Kanarel A B Splinting and Physiotherapy in Infection of the H nd J An if is 19 4 lvm 1984

The immediate problem of avercoming an infec

tion of th hand is so l kely to overshadow the quest on of the ultimate lunction that the surg on maxing lets that to the patient is the parimount consideration. From the in ept on of the treatment procedures should be instituted that prevent ad he ions and disability.



The author believes that the fingers and hand should have active and pas ive movements daily at least after the first forty-eight to seventy two hours

```
d scontinu a h
for fifteen
heht for a !
                            n and elic the con
help to ove
restion
  The ma
the hand t
the treatm
I cal flex
the phalai
le ar Irda
an 1 mo t
Ir m th pa
hand an li
posite the L
```

in many disabilities mu h can b done by non operative procedures so much in f ct that many

```
types previously subjected to operative p ocedures
are now treated entirely by the
Nan-on
```

d

si

si

s and mobilize adhesions A no single splint
will meet the requirements in all cases

It should be always borne in mind that the v tol v of the ti sue is low and the

erastic bands o

etastic bands o

dathermy the devel m massage s current an

app ratus
erds st
the pia
ant d v

h nam usinterest importance

The article is supplement d by numerous ruts showing various ti pes of sphais

H iweg J Trigg r Fing r in Patents Suffering from Polyarthritia (Sch linder F g r be hr ni mit F ja thriti) ig k f Lag 924

Cast D Senatura M D

hr al mich hathati) be h flore 924 ber 546

> SURGERY OF THE BONES JOINTS MUSCLES TENDON LETC

Madn "

I the

p au 1 g risuffic ent

t on on the muscle
In the operation no performed a logitud naticities it is the performed a logitud naticities it is the performed a logitud naticities it is the performed a logitud naticities in the performed naticities in the performed naticities in the performance in the perf

then mobilized separated with a niece of periosteum or hone and removed from its sheath the sheath be on closed behind it. A second longitudinal inci ion is then made parallel and lateral to the first extend

olidion sheath of the tendon is carefully preserved and the peroneus is not exposed until the new bed for it is read: Long expo ure of the tendon may

substituted by the rectus abdominis of the same si le. The suture should be made noder strong ten sion. The results in three ca es have been very en COUTAGING CLASS (Z)

Antelawa N The Surgical Treatment of Tube cu losis of the Hip and its Late Results (beb de hi gische B h dia g de H (tg le ktuberk los d h Sp tre li te) i ch i h Ch

Statuties on tuberculo is of the bip in the Re lin Charity Clinic during the period from 1800 to 10 o show that of 179 cases 50 per ce t were treated conservatively and 43 5 per c t were treated by operation. The surgicall trated c ses ere those ith exten ve o seous for s questry formation fung id inflammation of the toint fistula formation

iever poor general health a d contractures Most of the patients were in the first and secon i lecades of life An injury w s the exciting cause in 17 per cent of the case Lordos was present in 22 per cent and a shortening of from 4 to 12 cm in 33 per cent. In 8 o per cent the discased soint was and a

lo ed Twenty ix of the patients operated upon ere m I I 4 5

UE 16161

.

Mayer L The Surgical Treatment of Paralytic De formiti s of th Foot A JS 1 0 4

This articl b m w h

veakness of the anter or t bi I mu cle only When ы

from the r insertions and transplanted to the anterior libral insertion

Laralytic club foot of Type a mild varus de formity is corrected by putting the foot in a ca t

in e treme valgus position Typ 2 is a marke! varu deform ty 1 ith (a) the anterior tibial strong or (b) the anterior tibial para lize! When the anterior tibial is strong a Hoke operation is done the head of the astra alas is re

HALL II PAS ed through the sheath of the extensor longus digitorum. The foo D -

estant she a bony check to dorsal flexion Through the same incision the peroneal tendons are exposed The patient 1 then turned in the prone position and throu hal sh ped a ci on o er the heel th ne

11.1 s narde ed the ntenor part of the foot should be forced up vard to correct the cavus deformity

In paralytic equinus if the Achilles tendon 1 too short to be stretch d it i cut either by the Z in

to whether all of the contam nated tissue has been removed or if more than eight hours have passed since the injury one or more drains are in either. Open joint tractues have demonstrated that in

car ful mus le re education is a cessary Braces must be worn during the day the spl nts at night to support the foot Witzian A Clark VD

PRACTURES AND DISLOCATIONS.

Bonn R. P. Imary Suture in Open Fen tu es of the Ext emitles (Leb r den p ma. en N. ht erschlus het oft on N. n. henlru, h. n. de F. t. mt. et n) 1. h f s if p. U. f f Chi. 19.4 x. 13

Since the introduction of Lister's methods and ince Volkmann's time the attempt has been made in the treatment of compound fracture to change

ineault it list e ; i years with the method of primary sulu is assa of complicated fracture treated to the Frinkfort

Chric
The treatm at begins this ring youn lex ton
by Friedrich's method All of the operation are
done under general jumbar or conduction ange-

The seventeen cases reviewed included seven

Petersen H. A. An Expe invental Study of Ununited Fractur 4 with Especial Referen 6 to the inorganic Bone Forming Them Into in the Blood Serum B. B. Johns H. pt. He.p. B. lt. (19.4. W. 173.

i i to

,

ı

are impacted or on e and it e e sent al heavy catgod to used in the 1 m of b ne suture. All fractur's primarih treated with resulter r Lan plate hoved a marked del win call is f man n in to as sap whather seesalt de

ı.,

First W M. The Use of Plaster in the Treatment
of Fractured Femurs B il J has Hopk & Hop
R lt 0 4 x V 412

This article reports a study of fractures of the femur treated at the Johns Hopkins Hospital The

T I

tion in casts after a short period in extension the

There were 102 cases treated by immediate reduction under anasthesia and the application of a spica cast. Twenty two of the patients were over 14

later and is vi ited every week by a nurse. After from seven to nine weeks the east is removed and two weeks later crutches are used. In the cases of

were removed and four or fi e weeks later the p

extension instead of the usual horizontal extension. This was maintained for ux veeks. The result as recellent function and only o 5 cm of shottening. Since 1893 this has been the method of choice for children.

twelve required more than one closed reduction and cast. Results I om the use of Buck's straight extension show that of fifty say patients treated by the method seven required an open operation. Of the rem iming forth mine final mea unrements were obtained for thirty say fifteen of these had a shorten ang of 1 c. cm or more

The average stay in the hosp tal was as follows Burk's exten on method sixty five days open operation case fifty seven day overhead exten ston fifty days [laster spica (early and immediate immobilization) in case of patients over 12 years of age thirty four days and in cases of patients under 14 years of 1ge fourteen days.

WILL AM A CLARK II D

SURGERY OF THE BLOOD AND LYMPH SYSTEMS

BLOOD VESSELS

Tellord E D and Stopford J S B Ti rombo
Anglitis Oblit rans B 1 M J 924 W 1035

This article is a retart of four co. s. I through o angutis obliteran observed t thin one year. The stients vere men age 140 52 37 and 4c years The du ation of the symptoms range I from one to el ven s ars One surr con lalar amoutat on vas I ne b cause of gangrene in ach of three cas is

The prtient with an eleven year hi tory vas operate I upon for perforate I doo legal of r and

ta ne la triviel I etneal bu na heh took no less than ighteen months to heal and another was in

scribed by Bi rs r in 1 h vel the van us tag's brought to the ho oital because of sympt m of of the i cae Aith out et thr app a to be a Is mpho stic | teal of a pelsaged ar la oceta

the lumen tee me occuped by a cit heh i

Arrest the 1 on organ zation i proceeding collections of lympho 0.30

t on or ile illate n of the internal el te I mina. It a later stage the fibrous ti we in the lumen has a dn ratpearan e butth m b dut it an rate partly to the ontra tion of the newly formed came in their initial of the pl gia an I and the a of the l g i I ped a th los of the achili s plantar and bdom nairefie e Th pulsation f the femoral tires w s a cell per orable on the right side and bi hed on the i

compesing locks of many of the r formet milir Intlinth as t to un th lun a

Though gith to nivere gavile ea littlinity Of a use thing is the wi

fr mthet oiliac thel e rta at t The celaid white sik ga trec art Alt the pe at on the pul nd mu it n wer r stor din b th les ad l tr m ement possible in the rent but in derable i levan s

remained h ffl w ord

may be at phi 1 O of th authors [t 15

į

tation of the Lift aurick

There is on record only one successfully treated

Case of embolic obliteration of the aorta

Massage gives urprining results but a scarcely

artery
The treatment should be begun as soon as poolfbecause did tal propagation of the clot occurs rapidly

because di tal propagation of the clot occurs rapidly
and extensively
The diff revital hagnons mu t exclude throm
hose tracer F D Court M D

BLOOD TRANSPILSION

Kh r O The Vat e of Blood Transfus n in Acute and Chronic Anæmias (Ueber d Wet dr Blutt fu bıkt ud hroni hen Nam) Zilbif Gyak 94 l 74

The author has had experient the blood tranfusion in sical of acute lo oblood and twe

In no case has the uther been ble to persua le him if of the ab olute ne essity of blood trans

fus n He claims that there is no proof that the transfused blood retains its value as blood and he calls attention to the fact that the exchange test di

Becau c of its secondary effect and the grave dangers it should be convidered only in exceptional

Grossmann II Transfusion of Autogenous Blood with a Fatal Result (F ge lluttr nsfu on mut total chem V gang) Te | 18t f Gyna k 1924 | 111 2 65 |
The author reports a case of extra uterine preg

maner in which the tron fu ion of the patient's own blood I as followed by death from unarma on the irith lax after the operation. He raises the question as to whether in this instance there was a preciting downcrasy dependent upon a constitutional condition (parotysmal he noglobingma) or met lost call react on his to charged the blood

in the abdom nal ca ty that its re introduction into

I a ty 1 siiii ui cientii fresh and unchanged If even a part of it 1 decom posed it cannot be used Congue (G)

SURGERY OF THE BLOOD AND LYMPH SYSTEMS

BLOOD VESSELS

Telford E D and Stopfo d J S B Thr mbo Anglitis Obliter ns B t M J 1924 1 2015

This arti le is a report of four cases of thrombong; it obliterans observed within one yet. The put into versue me laged 40 g 23 and 35 yets. The duration of the vinptoms ranged from one to eleven years. One superacon lylar ampulvit in was lone because of gangrone in earls of three cases.

The raticut with an leven year history was organized upon for perfinated duodenal ulc r and

tained a trivial of ctrical burn which took noles that eighteen months to heal and another we in langer of long his limb because he was ad used by I sphys cian to apply hot turnenting stungs.

When gan rene eventually ensues in thing I so than a sugracond/sar amputation of the thigh is in I cited. The popt teal bifurcat in is neally certain to be blocked and to imputate at a lower leed is to court disaster. CAME NOTICE WID

.'

brought to the ho pital b cau e of symptoms of

during the n at h c days to 56 and the sh that be c me slightly progula. After a week the patient c med better.

She was then sulf nly end ath viol nt pain in the bdomin I and lumbar eg one. The lower ab lomen and pa ticula I he lo er e tr mit es be came mottled with lived patch.

Complete para

After the thrombons has accurred and a hile organization is proceeding fleet one of himphotes of ten not unlike tubered a often in keith is uppearance and persist until they are replaced by fibrous trister. There is a minorly ometric gibrt the kening

factor in the production of gaugeens succest last to ompess and cluin of many of the naily of rimed sulfe him limits connective to up to up n

The utle with a cand ers give dicase a letin | let let the teau nething

tr nt tle tritint en bonh ihri

remat ed 411 and Autonov

tion of tendons designed to slide as in the hand and finger should be autoplastic Valuable t chineal Jeans P G and Tallerman K II Postoperative Acidosis in Children Bri J Cl ld D : 1021 TT 68

hints regarding the operative procedure and the very

The authors observations are based on fourteen cases of postoperative acidosi in children. The

sis of skeletal and facial muscles, the surgery of joints particularly in arthroplasty the treatment of prolat se and of hernia in blood vessel and abdomi nal surgery and finally in sub titution for defects of

the dura t ection on the free functional transplantation

reserve is due in only small measure to the content of acetone bodies in the blood or the lactic acid ac cumulation. An increase in these factors was not constantly related to decrease in the carbon doude Phosphate retention did not seem to be the ause of h m h h n

strengthening of joint capsules the production of

11855411 Qualitative tests for acetone bodies in the urine gave a poor indication of the degree of acidous present WHITEM | PICKETT M D

ANÆSTHESIA

useruness of the method has been demonstrated principally in experimentation on animals. There fore the author attempted to trace the basis for the poor results. In spite of the many poor results he believes that the methods based on experiment and research in man should not be given up so lone as numerous experiences and lingths p to l of ob serv t h v

Christiansen E B De Etherization by Carbon Doride Inhabation Clf na b liest Wa 6 7

Chet traff en favors the u e of carbon floride for the rel of the after effects of ethe anasthesia

s will it to the

tot a necrosis and substitution by nod far scar to sue At the end of the volume I ex rd ca ses the trans plantation of entire member a d ti su sections The post on he takes a very er aine quest onable hat I anything has resulted from this pain I king esea ch. The cases that have shorn a favorable co reto d to ha e not been un

espirators rate luring administration of ca bon fortle van d f om 20 to 40 per minut As a rule the mer e n lume va noti ed within half a numete the respiration be migd pand gular In most case ther was a slight increa e in pulse rat but in non dith excel is per minute In Il except two e th olor was normal At th clo of the almini tration of arbon dioxi ! t aty three of the patients were fully t enty-one answ red wh n call I by name and six did not answer but their r fie e w re active The undestrable effects noted during de etherization

were a dilatation of the pupils at the beginning in

SURGICAL TECHNIQUE

OPERATIVE SURGERY AND TECHNIQUE POSTOPERATIVE TREATMENT

Lexer E Free Transplantations (Defece Tranplantationen) N w German Sugery Edited by II Auetin 7 Vol. 6 Stutteart Fike 2022

The first part of this work on it e tran plants which appeared in 1919 dealt with the transplantation of fat and muscle. This is condigated deals with

Of the new three cases in which a homoplastic

before treatment of the joint In another section of the book. Rehn and Ruef deal

trestment under normal and abnormal conditions

of the literature

Lever is the author all of the chapter in the transplantation of j ints. He was able to demon strate exp rimentally that the esults of this op rate.

PHYSICOCHEMICAL METHODS IN SURGERY

ROENTGENOLOGY

Enfield C D Some Fundamental Considerations in Rad um and Y Ray Therapy 1 JS g 10 4 7 30

The technique for p o lucing these different effects not described in detail but mention is made of the use and non use of filters to util ze ravs for certain

injuring the superimposed parts and skin

In comparing dosage all factors ente ing into them must be con idere! Radium has a constant

ecessa v to check up the outl ut from time to time

ŧ bly influenced in c t in conditions without letrimental effe to upon the surrounding st uc

s lected and the treatment given must be suited to the requirements of each case ADDITED HERE

ci e in general the more nearly the tumor anproa hes the embryonal typ the more u ceptible it is to radiation

Radium and the ro otgen r > h c an almo t identical biological eff et upon the ti sue Nost of the observed diffe nces r le to the method of thei application With ther agent v of three eff et may b produe 1 The irt i destruct o of the area ray 1 Thi th m h n m of re in I calzed I insin while di tructio i in lente l The c l h h

Nok F Observat one on the Effect of \ ray Irra

As the life of m ce with carcinoma can be prolonged by \ ay irraliation the rays must render the car i oma tou sharmle s However the inter m nfc t lal o on

at 11 11 11 01 this dos 18 well toler tel. The d s hich can b given without langer t m ce with car inoma t not as well horne by norm I mice after a dose of 50 units the latter u ally he t the nd of the d on half days while m ce 1 th c cinoma survive for about eleven days Wh n a lose of 25 units is given the corre

la ti vi ur s an l'a mpanies a de tructi e a tio n th one ar und th area destroyed The third type of ffect which apparently t

short of c milt h s pr g tle vital ty of th c ll flected d pr es th m and a th oth ban ! stimulates the def n e r tions of the host so that in fav r ble in tanc the sile is turned against the neopla m

o us ted to fore tra l ation with a dose of 25 umis h ed for twenty four days after the expo

no complaints of discomfort from the breathing of the carbon dioxide BRIDAN R MEERER M D Luckhardt A B Ethylene J 1 : M 1 : a a 1 2060 Heapey N.S. Ethylene in Obstetrics 1 Im W.

Leake C D sent r The Effect of Ethylene Oxygen Anæ thesia on the Acid base Balan e of the Blood J Im 31 tss gas let 206

These papers were presented as a symposium on ethylene arasthesia at the events fifth annual se sion of the American Medical Associati 's at Chiaa

LUCKHARY deals with the experimental laborators

inhal d puter ethylene than was ever inhale! by

man because of the careful method of pr paration

anastheti of choice in operative obstetrica sinci so many women requiring operative left cry are separdized by complicating conditions. In the maternes section of the Leesbyterian Hospital Chi ago ethylen was u ed 215 tim s during the p st year a th sate factory re ults. On the base of this expen ace Hean v states that ethyle e is entirely suffic at for every obstetrical operation

operative complaint as local arresthes a con fact of norn al labor it i superior t mitrous oxide origen a ce using ethiclene Heaney has disca ded local anasthesia in all obstetrical and genecological work.

The advantages of irradiation by metal alloy needles are the following

- needles are the following

 No irritating foreign body remains in the tis
- sues
 2 With needles of various sizes and lengths homogeneous irradiation can be obtained without

difficulty
3 Hyperirritating beta rays are screened out

1

- 4 The time factor is under perfect control
- 5 Bone necrosis 1 much less frequent 6 Pain is less

The authors cite cases in which fatal sloughing

seeds is as uniform as that obtained with the needles
GENDREAU said that efforts should be directed to

ward obtaining prolong diffraction

Morgan stated that be believes direct and in
direct actions both occur A James Larry M D

ι

sure The life of m ce can be prolonged also by in culation after the irrad ation provided this is lone with a three days The toxins resulting from the irrad ation are neutralized by the ca cino na cells introduced into the organism Baue see fC)

Leddy E T and Weathernax J L Erythemassa Unit in Deep Roentgen Therapy Dosimetry A J Pertemt 1924 x 514

The common custom of referring to do imetry based on the erythema doze gives the impression that the standard ration of dosage on er, thema gives

absolute un ta of ionization current it is not as absojutely defined as the selection of such a standard might suggest

theraps

By employing a technique which they d scribe in

detail they found that one hundred minutes was

It is not the author and nation to differ naiste

are to b compared all factors entering into them must be taken anto consideration APOLPH HARTUNG M D

RADIUM

Clark W I

glass tubes containing from o s to so me of em

anation is objectionable f r the following rea safts.

cuts off an circulation and olt in Cislough ng

Tubes on e implanted are beyond further con 5 Butted c pillan s of emanat on have a pro longed devitabiling effect upon bone

6 Pain is almost always a severe and lasting sympt m

The advantages of irradiation by metal alloy needles are the following

1 No irritating foreig; body remains in the tis

homogeneous irradiation can be obtained without

3 Hyperiritating beta rays are screened out 4 The time factor is under perfect control

5 Bone necrosis is much les frequent 6 Pain is less

The authors cite cases in which fatal sloughing

ı

and tuity distributed throughout them Regard uses needles 3 cm long with 1 me per centimeter and a platinum wall o 5 mm thick

Ewryg stated that in he opinion any effort to get

use of bare tubes ha been improved and that today with the aid of deep roentgen therapy we are able further to reduce the strength of the seed. Quick objects to needles only because of their large size. He believes that irradiation obtained with the seeds is as uniform as that obtained with the needles.

ì

The life of mice can b prolonged at a by in sculation after the irrad ation pro ided this is done within three days. The toring resulting from the irradiation are neutralized by the carci oma cells introduced into the organism Paur " a (C)

Leddy E T and Weath rway J L Erythemassa Unit in De p Roentgen Therapy Dosimeter 1m J Ro 1g ol 9 4 11 514

The common custom of referring to dosumetry

lutely d fined as the selection of su h a standard

therapy By employing a technique which they describe in the averag time of erythema production but that

detail they found that one hundred minute was

It is not the authors intention to differentiate

are to be compared all factors entering into them must be taken into consideration

ADDITION HARTIN ALT

RADIUM

evidence seems to bear out the e theori s The intensely mutating effect of heavy beta irra

sons 1 1 variable number of irritating h rd foreign bodies are bu ted in an al adv irritated tis no s Homogeneous implantation of the capillary

tubes as impossible

cuts on as escuent i sloughing Tub sonce implanted are beyond further con

5 Bun d can llames of emanation have a pro med devitalizing effect upon bone

6 Pain is almost always a sever and lasting

notquive

caused only the suggestion of tumor formation it was possible with three others to produce distinct tumors. Of thirty human tumors examined twelve yielded pure cultures of such bacilli. In all cases the tumors were more or less soft or had been made to

ulcerate artificially There were four careinomata of

i in of the shounder and the sateonal of the thigh. In one case fluid from an ordernatous arm in

abundance of grape sugar. The bacilli are gram negative some strains reduce malachite green but others do not

lentii in from 5 to 0 c cm of 1 per cent common salt solution tumors ranging in size from that of a pea to that of a bean appeared in one instance at the end of eighteen days

With strain flUE it was possible to produce in a rat tumors which could be repeatedly transplanted. In general the transplants soon showed retrogressive change but tumors of considerable size were obtained when to the mixture of the bacteria with

infusorial earth was added fluid from the externations tissues of a patient with cancer. Such tumors were successfully reproduced up to the sixth generation. A fact of particular importance was that in several cases metastases were observed.

After the second generation obtained by inocula tion bacilli were no longer demonstrable in the tumors

Grapp (G)

GENERAL BACTERIAL MYCOTIC AND PROTOZOAN INFECTIONS

n I -

deeply

of page of the test was quickly obtained

As far as the author is aware this method of treating actinomy cosis by a combination of surgery and light has not been used previously

W A BRENNAN

MISCELLANEOUS

CLINICAL ENTITIES - GENERAL PHYSIO LOGICAL CONDITIONS

COURTY 1 101ET and MOCOLOT repo t the case of a fattent v ho had his left leg crushed in a railroad seculent at roj m and sche I the ho pital at mil night. Varies wound vish exten ve lacerations of the must and expo ure of the box extended from the knee to the ankle. Their must also lains two

places

Heat fluid a frentlin comphorated all not caffein were a liminist red to combatish ek. The north morning when the shock had it is present amputation was advised. When the tourning was removed.

Although the tourniquet was re applied at one d ath occurred in fifteen minutes

The case is a guif cant in that after the pit at recovery from shock release of the tourniquet caused no hamorthise but permetted the taxe

in is limit; koullialos i i lo k puntity f the nea cerated venou blood and them hath's the wound with hypertome salt in toon helder the too me its lease!

I ng toxic ubstances may do lop in a relatively minor wound and produc sho k or the efficient he tourniquet. In Mo quit opinion amput tono is stroigh in leat do whin a tourniquet has be n applied for a pring diperiod and the posen e of toxic products is up to

In discus mg the cas reported Moreuot states that in the sympt ms of shock, which follo a sever injury the intoru at on from the injured ar a may be the seential 1 ment if hemorrhag and infect on can be ruled out.

shock from absorption from the crushed muscle Level amputated the leg. Completer covery resulted. Level is heves that make a confirmation injury of the thigh there is mose danger from the con-

ymptoms

Blumenthal F Aulte II and Meye P

•

Sm th b lieved that the bacterium tum fa enshich he and his co-orke a figo ered is the

chemical influences 10 that it is of import nee solely in ca sing irritati is

Smith with best pitche etiological importance of his bacillus in the delopment of cane rings in the tat must had be abit to I monstrate the citing organism in the tumor was takin as proof fit in mulom tous at riof the latter.

The bacte numerum free n has bend mentreted also in var us deas so im n and an the eloe

It s not eary to d mo state the bat um

422

ı

be N

I p t cat ct it eti I gy path I gy ymptoms dieaum at J W Sanders Illin is M J 95 1 1

t Med 1945 ElV J Then need the blood present at received the men of the blood present at the received the men of the blood present at the received the men of the blood present at the received the men of the blood present at the received the r

39_ VES 20 έX

١

Sı

Art

N there t Med 9 4 x v 8
The path g ess fgla om F H Vermo ev Arch
Ophth 9 5 h 2 Thed ngr gn ! gl oms L \ Marion M d J Au tal 95 80 Ph t g aphing th hum nf d W O Bett Noth wat M d 19 4 zzi 3
Demon tato of viual fild apparat
Lyszez N rithwe t Med 0 4 1 1 The pism of met J N Ev ns Am J Ophth Osjs 160 Tade elpm tith pt n dimu a nbro H C HADEN Am J Ophth C HADEN Am J Ophth 953 3 R tr bulbs timits St J H P 250NS N there t Med 9 5 xx 4 Alb mau rint JP Low o k tuky M J 19 5 x 4

A E BULSON W ZENTHAVER E S Truov adothrs JAm MA 95 lex

Ear

Ad ances in ot larying I gy d ing th y r 924 H Hays A P imes dD Austin M d Times 95 hi 7 Som glected in rs of th t log I fill I k LOVE Proc Ry Soc Med Lo d 95 Sc t Otli Studes fth Ring t whom-Šο

95 5

D fness and t asso att with ost tis d form as repot of a se L W Jones J Am W As 1925 1xx 1 86 A pcm n how gb yankylosis of the malleu nd 1 cus E Watson Williams Proc R y Soc Med Lo d 924 vm S ci Otol 4 Acoust c lacunge D W DRURY Lary osc pe 1925 The analysis a dic rection of heat g defects I II IONES R d V O KNUDSEN No thwest M d 1925 xxi

Chr p g essi e d aine s trated with the galv nic Thea oe and the tas sou ces f focal infect n

ĭ Lo d 925 x Sect Ut 1 4 C servati teatm t of cho c uppur ti e ear W II HASKIN A n Ot | Rhi ol & Laryngol 19 4 Ac te m stodt s M N KLEINERT Larvingo ope 9 5 x 73
Tubercul d se se of m stod T Myecke Proc R y Soc M d Load 924 x i Sect Ot 1 8
Malg atd e ith a trum (m t d) F MUECAE

Proc Roy Soc M d Lo d 19 5 x Sect Otol 9
A c mplet sequ trum of pet ous ports n of tempo al
bon F Muz KE Proc Roy Soc M d Lond 19 5 bon Page 9 M stod u ge y C F WELTY \ rthwest W d 19 5 The s gn fic f b ct ramus foll wig the m stod P ats J H HARTER A rthwest M d 9 4 xxi 35

Nose and Sinuses

Nasal d f rm t s sociated with to g n tal 1 ft of the 11 V P Blair J Am M Ass 9 5 lxxx 185
Th treatm of f asal d f rm t s V H KAZANJIAN J Am M A 9 5 1 177
Syphili 1 cm th h 1 greal standpoint J A BAB BITT Lary g c pe 1925 xx 60 Plasts rep r of the yphilits n se J E Surrian Laryngos ope 19 5 x An lectri ally dra a as I saw a d rasp S I GLAUER Laryngosc pe 19 5 x 78
An w asal plat F W White Laryngoscope 10 5 5X V 76 An atl s of the ht path lay I the nose a disade ntar lis T Bate and O Brex Lep g Ka L tzsch 19 4 Hem pl gra foll g ubmuc u res ct o f the sep-t m M R s what Laryngosc pe 9 5 xxx 32 Hemising ma f th no M Rosential, Laryngo-

of pe 19 5 xx 54 A cas of masal growth I Moore, Proc Roy Soc.

Med Lo d 925 x m Sect Laryngol 1

BIBLIOGRAPHY of CURRENT LITERATURE

NOTE -THE BOLD FACE FIGURES IN BRACKETS AT THE RIGHT OF A REFERE CE I DICATE THE PAGE OF THIS ISSUE ON WHICH AN ABSTRACT OF THE ARTICLE REFERRED TO MAY BE FOUND

SURGERY OF THE HEAD AND NECK

Head

J 1925 The col fth epithelial cilius co 3 netti al and orneal indections H J How 20 Am J Ophth. 1914 3.3 vii. [361]

7 Australia. 925 1 5 Median fracture of the occup tal bone F M Canenar

3 4 21 535

The repair of acquired defects of the face R ff live J Am M Ass 1935 lazz 18
Injuries to a safrom the sugar after a tone to diseases of the f c and neck W W BARCOCK I Am M Ass

19 5 izzn 187.
Serum prophylasis of epid mic parotitis. J C Regan
J Am 34 Ass 1925 izzn 270
Implantation of Stenson a duct into the aptrium! r the reli fof dry fortid catarrib with an epitome of the op rate e treatment of ozena J L Suzenan Laryng scope 2025

XXV 23 Removal of St uson a duct from the right antrum by plastic methods etc.] E Suggnan Laryngoscop to \$ Roenig n hang s it r radiati a tr atment of the

submacillary cland II von Salis Strableuth rapie 9 4 xv 1 105

The perative t atment 1 habitu l luxati s f the 148

Eve

The future of ophthalmology F A Krenze A ribw at Med 1925 XXI Industrial eye ccd nts F Atleour Am I Surg

925, 2233 4 A bullet wo ad injury t the isu le it x each side I L Ginson Med J A tral 19 5 86 occur. I

Phenol burn f the left yel ds yeball uppe f c and temporal area J E Sheehan Laryngoscope 19 5 22

1025 IX 4 Roenterpotherapy in sarroms of the o b t. G E Prais

Exer J Am M Ass 995 lexm 87

The prog osis I keralitis percelymatosa G Nosi and W Lowevell Urol & Cutan Re 1925 lexx 31

C meal d generation as seen by the slit lamp and cor al mi rose by A Ca rangava Sgl mid 9 4 lan 508 6 8 The alu offu son training dm thod for tade top-m at D W Wetts. Am J Ophila 925 3 11 45

12

5 nt w

I cipient catara t D F Ha ENESS J I w State M KETTERY N Sec 1035 XV 9

Iod 1 ex phthaim c go ter F R FRASER Brit M J 1925 1

Atypical toxic go tir. J. E. Else. Surg. Chn. N. Am. 7 The su gery f goit L W Frank Kent ky M J

924 XX U 3 Pelim ary r port f the ompl te s g cal esect n f the thyroid gland O M WALTER Ill no s M J 19 5

P rathy od therapy W S McCany J Am M Ass 1974 been 1847 The sing is to II F Taylor Illinos VI J 1925 zlvı 36

Lond or xvii S ct Laryngol 5 A case of tubercul sis of th larynx Siz J Duvo s Gaant P oc Roy Soc Med Lond 19 5 x 11 Sect

Laryngo! 4 Tw cas of p rs te t paralyst of e vocal co d from a tube cula l o in ol ng the recurrent laryngeal nerve Sir Sr C Thomson P oc Roy S c M d Lond 1925

n Cl Sect Two specime s sh wing lee tion of the larynx assoated with 1 nc nt ga m E W GOODALL P oc R y So M d Lond 10 5 xvi S t Laryngol 3 A cwl ryng al ynng D R Higher Laryng scope

925 X 77 Ch droma of the c co d cart lag of the l rynt F B

WAGGETT J Laryng | & Otol 1925 | 27 Thece ses I ca er I the laryn D Torre A h

SURGERY OF THE NERVOUS SYSTEM

Brain and It Coverings Cranial Nerv a

The damnt ferbidg by ephalg raphy H Tate as Zthidg hiu Pychi Q24 CX 4 8

Vied J Aust 1 oas

A

3_

Lingual hem atriphy of bulbar nd pa bibar orgin sociated the paraly f the biba niree J Vasilia Achite t d linngol to 4 xxx 1153 The cure of pn m oc men gits II MUERSAM

The dagno f tuberc lou m g ti in hidr n W

The dagno f tuberc lou m g ti in hidr n W

The m it seek tad a ces in the su gery of tingem al

uralge m; W T COURTH III of M J 195

at m lelt f th g man (semlu ar)
R D Lock in T Brit J Surg 935 x 558
f th lit ga en n g gl n C W RAND

ga gl Tum Sug Cy ec & Obst oss 1 40

Spinal Cord and Its Coverings

```
425
                            INTERNATIONAL ABSTRACT OF SURGERY
                                                                  A case of m mb an u st matetis in n infant six mon he
                                                               old I W Tou La cet 1925 cc : 7
                                                                                         Pharynx
  Lyst of the ni n reuromate Al ROSENIBAL Lary &-
                                                                 The t atment it occ to anging P M Atmentage
s ope 1925 EERV 40
                                                   rad um
                                                      L b
                                                    u D
                                                               21 VEXE 2101 SQUOR
                                                                Digith my in the remo all and treatment fight syngral and D M KENZIE Brt J Radi I 1925 axx o J
                                                     5 6
                                                               Cact 10 5 11 3
                                                                 Lymphosa coms of th t s1 S G Danvey K tu ky
                                                      YPEO
                                                               M J 925 2x 11 47
Ad o-arc ma of the right tons i cured by rad um ma
SC pe 1935 XXXV 34
Atrophic th net s C C COTT N Sork State I M
1925 XXV 112
                                                               at a seed I CLAS MAN Md J&R c 925 cm 86
Focal infe tio a is in the cce sory u R H
SKILLERN J Indiana Stat M Ass 19 5 2 11 8
Nasal sinusiti and g is ral med cine. H M Jay M d
   4 ---
```

s ope 9 5 222 50

The 1 olopy a d t eatment of totallis hamorthage
G H Cov N to k Stat J M 19 5 xv r

M Jones Laryngoscope 1925 EXEV 38
Nassi accreary sum thee se in childr in 1 I Innie
Bort in M 85 | 1955 care 187
The treatm int of 1 intus in children.] C Braswett
Okhh m 86 t M Av 1993 x n.y. Neck loegn body t then k J E Sixena Laryngo-Ethm id a d sphen d infection J R WALKER] scope Q 5 XX5 14 Oklahom St t M Ass tors ave a Acute throad in F M Suzar v N Y k St to J wk DPM

Dubl ethmoidits man I nt I I Steen Lary . A ascorting og talthyr gl salhet i H B ner

Laryngoscope oue stay 36
Hamorrh go i llo lup ethmoid and ther an a oper

atto 4 S Kutkin Laryngose pe 19 5 1 27 Mouth

Excesson of a V h-ped pac f th low rlp en s roenigen ray r rad um t eatme t) C Broencoon

> E Pres Lk 3 10

I Zz -th runs W

A 5 JACKS N A H ZELLE Lin (364) 31

ı ch med F T HD USLER

We hasche 9 4
Som g n el r ma ks g t F T
Springe ld M south Clin Bull 1935 8

SIMPSON J

35 1935 28 114

Aut tool

1915 x 469 gy Iol 11 D

Scorr Ar h Surg 1915 73
The post traumatic pleurop lm ry syndrome L U RABUTETTI a d A LACROZZ R v Asoc méd 21g t 14 1217 So. d med t t m 19

BELL Ann S g 1925 lxxxi 273 Ant thorac corsophag pl sty T Rovsing Ann S g

14/10

Miscellaneous

19 5 lexx v 167
Pyopne moth cured p ntane by J C NA ARRO a d E A BERETERVIDE Rev A oc méd sge t 924

22 vii Soc de med s tern 3
Purul nt pl utisy t i ng th e ti e pleurat ty
A SCHWARTZ B ll t mém Soc t de chu 1914 i
1900

S g 925 x 180

The late of thora courgey sa peculty C A

HEDBLOW Arch Sug 19 5 267

The late of thora s gery W MEYER A h

S g 925 x 18

Canhagus and Mediastinum

refren t treatm t by nt t grtrgad

-

lasyngol 1914 xxx f 57
The esults f xeresis f the phen nerve E Len
MANN Zischr f Tube kull 1914 xx x 416

SURGERY OF THE ABDOMEN

Abdominal Wall and Peritoneum

Pl st. fth bd m. I wall with tran pts to ff. dt et G Ratt aont A ch t l d br 924 x 77 1372?

A phase fhem too little emphasized C E Harves Vield J & Rec. 935 CER !

Tuberwolds and b m. V. MANUEL WOLLD Sg!

med 9 4 km 600
Stra rul ted h m a through the f rame of W 1 sl #
W G McKenite d D Wood Bnt J S g 19 5 m

3 total h ma Spgel M AP HHALIKA Zentralbi I
Ch 1934 b 168

I guinal h mia Il Klaus J M d Soc N Jrs y 1925 xx 7 A lage of 1 drect gu l h mia 1 ssoci it n with acqui ed d rect h m h hoen Z traibl f Chr

19 4 i 7 0

Lat ral d placem at i the cord in oblique inguinal
he a perati as mod fied B sint perati a to lessen

r utre ce n el ct de ses L F W 15 v S g Gyn

& Ob t 1915 xl 210
C set of pento tis n th gynecol gical cl 10 in the pento from 913 to 1923 5 Jezuraski D sseriatio

Fra if t so 4

The l mutati ns of urg ry n the tre tment of acute ppende l perit its M N Hapley Ci innati J M

19 5 573
Peumococcal periton t Il C Cameron M d Press
19 5 ns m 67

The q e tion of operation in cases of acute ser s
pento its H Treny M enche m d Webnschr 1974

Period its 21 FIGURE ALEDDER IN QUANTIES 1944
At the general period us and its truther t. W. S.
HAMPLEY Brit J. Surg. 925 x. 4.7
Om miligrafis as a mea s. ir hefalt riberating exte

Om ntal grafts as a mea s ir hefalt ri beratung exte s e adhesions in bdomen F C DA is J Med Ass Georgia 925 m z6

Studies on the biol g cal tre tment i peritoneal adb s s H h twa v Deutsche med Wehnsch 914 l

2015

The du 1

The r s its obtained in the su gery of p ripheral herve niuri s f om wa pr i chiles A Gosser Beu lles-med 1924 V 114 1366

Sympathetic Nerves

A cln al aminatio of the data bances f the m volunt ry nervo s v tem I B Correy Am Med 1025 XX 7

The r

h 2100 Extract a of the very al yappath tie a broach of a thma A toy tr Ersten Kla Mehnsch 19 4 m ort

C rsi 1 ymp thectomy nang na p ct ns a rep rt f th e a s H LILIEVIDAL Arh S rg tore x su

SURGERY OF THE CHEST

Chest Wall and Stease

atem stafallacya dihed gr Cl ro c ma titi fitsell laigns S & G L CLEATLE Bre M I tors Bre stels asea d b

uncer f the bast for e ethicy-one vars aft t correction F I Stel ARD Brit M I o e

Traches Lunes and Pieura

Rad in treatm at of copi sms of the upper sie pages G A Robinson J Am M As 19 5 inxerv 2 3 A ate of sudd d

the V LL Ca

Toxx 1 la s

'n

10 4 38 x1 1598 Chro cp cum nao tum rofth lung a nte est g obs re to a funfiltr tion of the right upper lobe W Meyer Arch Su g 1925 2 43

Crial sympathe tomy in a gina pectoris W. H. HoLE s ad S. W. RANSON J. Leb & Cl. Med. 194. Cervic I sympathectomy a a palliati e perati angina pect its W S Lewir 2 at albl ! Chir age ! 2529

The question of penart rial sympathectomy Risness Z nerally f Chi 2024 li 1685 The ba is of p marterial sympathect my with a contri butt n n dyal netion of the ensory sympathet c system. M LEHMANY Ere b d Chi u O th p 1024 XV 608 An experimental contribution on pen ree tal sympa th ctomy R PALMA Ann tal d chir 19 4 in 8

What happens a an estrem ty it r p mat nal vm p th ctom H FRIEDRICH Klin Bich chr 10 : Miscelianeopa

The traiment of brachomy as with the Xry A.C. Howr and J.M. Schuller V. Y. & State J.M. 19 x

Pneum th rax th apy a tuberculo | W. A. G. grzz.

oze xxx n Soc d med at ma og Recompre n of a tuberculo al g by stac lp eu mothorax afte ninter ! fm

n rac plasty n cases of p lm n r tuberculos J B Ambreson Jr Med J & Rec 0

E tal pulmon ry g ng e ! pd | t course f cute t be cul sis A Lemen d I B R NARD B II t mem Soc med d hop de P 19 4 3 3 al s 86

Pulmon ty gangr | I prol se d olut n & C ts s prand A Tapper B il trem or mel d hop d Pr 10 4 3 1 1 1451 Cla on abses ith 1 g W S Less F W d the Arch S rg to

GAARDE A E M R An astructs a of above of th lung ssocial d with m dastin it me H Ac inne os A h Sug

015

Ab ess fibels goved by min (Bat ad P Hurran B B traffen So med d hop d P 924 34 st 500

```
Chronic and dietis F G CONNELL J Lancet 1925
 I to suscept on J S STONE Bosto M & S J 1025
. . .
617
```

I tussusception h in otomy thr ugh an old c I t my J M Gile Boston M & S J 1925 c cit 3 Postop tatt e I us L A Harry J Oklah ma State M

Is at necessary to operate in chronic appendicitis C FLANDEN Pes med Par oza zxxii o 6

X 40 Af three tributent the dignissoft of all kee A Bren Dutsch Zischrifth 94 clist 145 Print at nois to terfolth dod mim et malt main all Wrowers Sug Gyne & Obst 1925 | 84

et mêm boc nat de hr 1924 l 97 The he div of c mpl te ect l prolape R OTTEN BERG & d L GOTTSCHALL J Am M As 1915 IXXIV the go 1 idence d pecul

Ileocacal guigitat S J Wolfers N M d He ld 0 5 al 5

Rect l p thology the g o 1 idence d pect ant es C Rosser J Am M Ass 10 5 lxxx v 03 Tw ases i ca cin ma of the ectum completed by pregnancy ndt ated by cisi R C B MAUNSELL In h J M Sc 10 5 t ples f the op tion f arcin ma of the r tum

le id 95 ml 5 Ileocarcal t b c lo 1 J M Lynch J Am M A Q25 lxxx1 Anu ulcas of ntests all birut and t Meck I det ulum dac mp dbydff p ito t H
S DOLAN Canad M As J 95 23
Ast gulat dh rna i th tetu al w h n l s
thel gei test H Knor D i h Zisch f Cb 1024 clax 184 Whit onstit o tpt - me beerent s theel PB Welch JI Stat M Soc 9 5 Stat M Soc 9 5 v R C Correy J Cance 1925 1 27
The res its of pe meal action in the tre tment of rem ma of the rectum a lysis of 143 ates. W. B. GARRIEL But J Surg 925 x 466
P rv ng the ph net in th treatment f fist la in C I DRUECK Ill no M I ross al n 60

d seases f th Radilet lam the opage e em m th d S G Sc TT B t M J 9 5 Shtile g tlm gael A L rore Bill mem Soc td b g 4 l coo Right ddd tculit dd rti Is L

Liver Gall Bladder Pancreas and Spieen

LeW to R dol gy 9 5 43 Acut 1 t 1tt P H R wz J La cet 19 5 The grite imetiche cul ratio colt Sine CEV NS Brit M J 195 4 Tim ly re ogn ti f ce of the large it stine G

anat my of the ler bile p stages gill blidde and p cr s H BRUZNING d E SCH VALDE Mu ch Be gmann 19 4 Bl rytractd as A BLALOCK J Am M Ass 2 57 Ble tract disease c ad da greally W L BARBER

Tim by re ogn to f ce of th large s t stme G Schwarz Fortsch z d G b d Roenig n trahl The tree tm tof cane of the colin W F S STRUNK

Ja Med J & Rec to c cxxx The I cocytic picture catarrhal 1 ndi e (chola g 13) E Thewais and W S Mindleron Am J M Sc 925 lx 59 Aca ffett jd kStat JM 95 zzv ro E S McDowert N

med

The s rg ty of 1 de J B DEAVER An S rg 20 5 Exxx 287 A la ge ca en us hæma gi ma of the left I be of th I e caust g bestructs n to the card ac onfice of the stomach C P G W KELEY But J S rg 925 xu Visible changes in the lame chronic cholecyst (is R

L Weinte Surg Gynec & Obst 1925 xl 94
Abscess of th 1 er sut ed without d nage F
Drin r nd J Leveur B ll t mem Soc nat. d chi atm t R d ts

024 l 1141 The fun to of the gall bladde an aperimental at dy R DEWEL and R BRUMBELKAMP Mitt a d Gre g b d Med u Ch 1924 xx 11 5 5

JM Appe dicit ca se of intestinal obstruct n R Brit Med Chr J 19 5 11 3

Cholecy tography n perim tal nd clinical study M Ass 1915 lxxn 14

The treatment of a cities by oment pexy description for this que J Fi the. Bull et mem Soc nat de chir 1924 I 1138

Gastro-Intestinal Tract

1925 lax 110

Nyoma I the grt to ntest nal ranal R Aret Z

talki f Oynack 1924 xl; 1404

A lew comm nts on g stro-intest nal \ ray r po t W

The tree ton 1 fperi rated gastres and d of luces.

G P Maris Brit M J 19;

The IT states of gastreduced rate lucer and it late

15 to 15

n

615 Roentgen logical finding nacase of phytober ar W K Basti Scott la to take of lymph granul mato of the stamach H
Sreg at Ach f him Chu 19 4 zay 110

1995 CM 19
Experim for Inhigh int itself obstruction of the make of RL Henry and TG Ora J Expressed 95 x 1

The chiral time to note his include blood of the dog siter preme tall alrestin 1 batraction RL. Haars and T

11

.'

١

1

ask 1

Rhood I ianu M J 915 J A det for pepti ul er A At H LER J M hgtn Stat M Soc 19 5 17 034 1 1

Ħ

A case of metasta is f a hamangio-endothelioma in a myofibroma of the uterus S SDicaa Monatsschr f G b rtsh Gyn k. 1924 kx 1 235

The rôle of ad m i th treatment I bennen and m lgn nt tumors of the uterus T E Jowes J I Stat M Soc 925 xv 6

Stat M Soc 925 xv 6
Surgery ersu X ray dr duum therapy; the treat
me t of tumors of the tru G W CRILE J Iow
State M Soc 925 x 2

Rad m erau gery in ut n e mal gna cy F C
Br. so Ja H hneman Mo th 9 5 kr 19
Radiat n of myomata s p t d t b s ornatou
F vor Miaulucz Radzeka: Strable h rape 9 4 x m

E dres it of the tr tment of learer ma with rad um and the tgen h H Schutz J Am M

Vdo 94 KX 45
The dag of dagnost ec near c ma ftheute ne ers; They nemann D t h m d W h h 94 l 1137
The ope ton f ten m J Tuiss Mu ch med Weh schr 94 l 1 54

Adnexal and Perinterine Conditions

bynek 194 li 353
Afibom of th ght b dlg m twth re mat
dg ratu DE ROUTEL Bil Soe d bit et de

gyner 94 75
Spand: elld sare m ith bodigm i RF
Var Med J Aut i 95
St des itheody sus immun i stgt on
the tandem J kræuen A I f mk Annat

924 537 th pl

Matsschiftebth Gynk 924 li 23

d
9.4 lx 607 64
The tolgy class fit pdl/f htrv ftum thory and the find pelicity to gabe tall fler im ts with sex toluminate h. V. Berr J Obst & Gynre litting 9.4 a.m. 530

1398

Bilat r I cystic imbryoma of the o ary with torsion of the ped cl. of one cyst. L. J. F. Butt. But M. J. 1925

Cx al meta t sis of a mix d tum of the aries Dr.
ROUVILEE and COLL Dr. CARRÉRA B Il Soc d obst et de
gynéc 9 4, xiii 750
E. dometrial caci coma of the ary rising in end

metaltu u thtogan JA SAMPSON Arch Sug 925 r The t splitton of served human ovaris B Zow g ad F Wotr Z tralbl f Gy ck 1924 #1 210

" SEACK HANS-

the find gs

l 336
A li reta ng t strument for tubal insuffiatio E
Kocm Z nitalibi f Gynack 1924 zl 111 908
T balt uffiat in to determ neh perm bulity of the
t bes F Dovay Bull See d obst et de gynée 194
728
Plast c torat nof the 1 te rupt d tubo ute e path

Wy P STRASSMANN Ze traibi i Gynaek 1924 | 11 68 50m exp menc n c ses of t berculous taip ngo-oopb ratt P WETTERDAL At gynec Sc nd 194 7 75 13831

External Genitalia

A 1

The q steed pruits vul z P Weanez Vitk Whosh 924 xxxv 3t 1 11 1 hat as a vul z the epot of a sporadic cas 11 if Retreat and P Atamerze Am J Surg 1975 xx x q 18 gunsi geat oums ith vul a L Suxman Derma

t 1 Web sch 1914 hxi 998
Aca e of utracyst c papili ma of the let lab um majus
A Axas M atsseh I Geburt hu Gyna k 194
The g n I th elton h Transvány A h I
G ack 913 Cxxx 9
The gly open cont nt I the gr lep th hum a dit

The glo ogen cont nt f the grid lepth lumn a dit denote cumpo ta e H Meaker. De tsch Zischr f d g s g nchti M d 1924

Spurcharte n the agra as the cuse of d se se ymp1 ms Pantire Zisch Geburth u Gyn k 1924

lx res 634
Th

4 733

A c meanson of sod um tetrabromohenolohthal n with sodium tetra lodophenolphthal in i gall bladd r sadi ography L. R. Whitaker and G. Minkers Sans

Gynec, & Obst 1925 xl 17
Acut cholecyst its ch lecyst stomy cure persisting aft raixt en a ars P Sixona Bull et mem Soc nat. de

ehr 10 4 1 1114 A case fg ll sto es with a gumma fibeh rmistaken

med. 1 terna 99

Acute pancrent us six B Moyeman A n Sure

tore lexal top A case of sub rute I rm I harmonth gr pan teatitus

Mi cellaneous

C mal te tran position of the a cera a twenty note to es with r mark on etiol gy

GYNECOLOGY

13781

Ute un

The effect of experim neal circulatory hang a upon the contractions of the ut rus of the rabb t F von Misurica RADE KI Ed W LUEL A ch i d ge Physiol 1924

Conge italabsen e fite uterus nd associated developmental delects report lace o LR Wharton Sig

Gyner. & Obst 19 5 xl 5
The chinical study and treatment f the do ble uteru with reg rd to ten u p blished case M GUTLESST'ET al M CHON Gynec, et obst 1924 # 145

8141 Lt lx

The tratm nt fm ble b ckwa d di pl ceme t /tl uterus A Donald Brit M J 924 is 10-7 [380] Uterine p clapse R L Gis on S th M & S 923 13501 lax vil 44

The limits of c trol by f I g n the tra tenn u e of in truments H S Linkin Zentralbl f Gyn k 19 4

zivan 1458

Wh tind for abdominal contusion G AUDAIN Med

1024 lax 601 610 The acut abdom J B DEAVER Surg Gynec & Obst to 4 xxxix 744

The acute sure I abdom n C E HYVDHAN I H C

TAYLOR Med J & Rec. 1925 CXX 27 Pelvic actinomy us W M Brickers Ann Sore

o 5 lixer 343
Subph e c abscess and ta diffe ential diagn sis roe t
e of gically con dered L. T Lewald Arch Surg

1925 8 344

Intra bd minal a d intr pel c adhesi ne postoper at v nd othe wise t W HERETT Am J Surg to S.

The disease picture f het rotope, end metrum like epithelial growth according to the theory f Sampson and Lat he I boor Z traibl i Gynack 1924 zlym

837

The u e and abuse of the ut n e curett F BA at G

TON Bled I Austral a 10 5 82 On curetaing the w mb Sia J O Co tox Med. Pre s TORS BY CERT T

Curettag with at any thesia on the ffice table H A KELLY Am J Obst & Gynec 1925 12 78

Gyn ck gzi la g Re to of the tre time t f chr m c rvical m tind th Path s can b 4 Conversage B il. Soc d ab 2

A discurse of the use of the electrocaut ry in the tree tree the lac t is and chronic infectious disease f the errax H E Miller Am J Obst & Gynec

9 5 ix 73 A case f ad metrion B Konocui Zis b f P th 0 4 xts 114

Studies of 1 cocylo is f pregna by F Schultze Property Vo at schr f Gebuttsh u Gunzek 2024 prin 32

652 The vale of C Hus 1 premature rupture f the fetal

. . . The vmp theti persons system 1 pregn BCY data disturba ces I. Serry Muench n m d Webosche voza 1vvl 880

Pophylactic i terventio a in co t ct d n l a M LUSPER E R argent de bst yer e 104 M 1 3 S
D R vuterus with mult ple pregn ey ep tofc sea
W S Bai E trong Ved P sa 034 n s car 60
Acaseoft plets Carea Bull So d bst etde gynéc

024 1 735 Reta dato of the dev lopm nt fone of two na c se of hit ill p g ncy sugg st g the pos ib hty of perf tat n \ CATHALA and G BARB > Bull Soc

ht tdegynee to 4 xt 717
The p se t tatus fe perment with ft lead of I pho y and phonocardiogr phy J A BE UTL R

~/4 11

[390] Omental dheson sign ting re u t ta term pr gnancy P G (FAM) Clin st t 9 4 xx 436

Intra uter peg a cyfoll wung tw tub ip gn
thee csie tub i pr gn net no e pati of H E
Lin ena Am z

&

7 4.

3 H 741

ü

RI.

Report of a cas of tab s d reals complicat g p eg DARLY R N HAMBLEN AM I Obst & Gynec 1026

RE ٠,

87

1934 # 457

I the gas in g
Theo is t mm a for gn cy distinct t
R M Pre on h h k

dev edbtig4 1140 Sttile tribunt the clamp one ton F SACTIONER Mo t ch f G burt h u Gyn k nes N 1 77 Huge c dti s ade lmp E Oprez Z t thi t Cy ek 94 zl 88

Mirty ipegacyade i mpia L Brt Asrtitt
Da ti i nki ti 194

Th Imnaton fe lamps a s c mpl ato of peg ncy G B Mille Am I Obst & Gyn c ole i

It par al sodum-chl d inf s ns in ob tet cs ndgs e l gy d the treatmet f feel mps accoding to G tr T Heyneman Znt ibl f Gyn k 2024 1016 Carsare n ect 1 ecl mps C B faceanan C lo ad Vid 95 xx 1

Urt I tritus obstitut with pecual effect multiple bot (n.l.) dt pp lits f p egna cy mult pl bot t Way of 19 5 ix 47 [391]

The rapeutic bot a J DE TOR E BLANCO A ch de m d rug y pecial 9 4 633

Th att tud f th gyn | g t t w d the q tion t th al bot n | S GALANT Z atrible f Gyn k 978 034 XI 1 I d d borts CORT S RRIA R med d Lru

The cts et exten at f bortion with f W SIMON Mue ben m d W basch 9 4 lt 94

.

Miscellaneous

Ect pc mu B rian m (pelv c adenomyoma) R t Battey Med P s 950 cxit 47

C neerning conception a 1 ste lity II Farined Jahre k i a rati Fo (bild. 1924 xv r The t eatmint of dysm norrheea and st lity W

P 194 1 395

ab Lip Bad omyom postoper tie is 0 s of the bad and W S L wow a d A E Mariz Lee S of the second of th

Chronic back the gyne of gy D Doubal I net 19 4 6 1220
The cult atto of g nococci from the portuo and to urethra W ROTBER Ze traible Gynek 1924 at 1 1613

Fee yea and results obtain d in tart nom if the find to pell of a m with special reference to radii mand Visy the py H Sermariz Sing Gyne & Obt 614 x 12 775 Gynecologi I V r y c re nom E \ oo Strahlen

ther p to 4 avil 244

The pecific no specific treatm t i compleat dg n r
The pecific no specific treatm t i compleat dg n r
The pecific no specific treatm t i compleat dg n r
The pecific no specific treatm t i compleat dg n r

1357

654 Early post perat e bstru tio 1 gynec logy S Mossé dR D unkéaz Gyné et obst 9 4 x 182 3387

OBSTETRICS

Pregnancy and Its Compil attors

in and the fitte cept on 1 m m G bus a
Z n sabli f Gyna k 1924 alm 188

The c rly dign is f pregnancy F Be Ack W n
med Welnschr 1924 bt 415

The pr t 1 shie fiphi ridge glycos ria i th dur no s i pegn ny M Har ur We k! W hinghi 94 xx vii 64?

A crit que of m thods f the early diagnoss of puncy M New M natesch i Geburth u Gyrack 194 kg u 63

Studes flu cytoss of pregnancy F SCHULTZE REDWEGT M atssch f Geburtsh u Gynaek 1914 lx_ 93

The on pr tein nitrogen a d uric acid al es in the blood 1 p egnancy V J Harding k D Allin and H B Vav Wyck J Obst & Gynze Brit. Emp 94. [389] XXX 595 cy and its The sympathet c nervou system in p g d t bances L SETTE Muench n med W hosche 924

Histolgal at desofg dand purperal ut ri with

ide gynéc 19 4 m i 711 Pr phyl cti i t rve to s m o tract d pel e M Luis Prazz Re a ge t de obst y g c 9 4 m 308 D plez uterus w th m lt ple pregnancy epo t f a W S BAINE HOE Med Pres 9 5 ns ix 69 A case ftriplet Clease B ll Soc d bet at gyné

to 4 x1 735
Retardato of the d lome t f of tw a cof b vit llin p g ncy uggest g th possibil ty of s perfetation V CATHALA and G Ba n o Bull Soc

d bit et de gynée 9 4 t 717
The pest estatu of xperim nis w th fet 1 d t lphony a d pho ocard ography J A BE UTI Re IT that d b t yet og 9 4 t 308
The lid and d control of the phony a d pho ocard ography J A BE UTI Re IT that and d b t yet og 9 4 t 308

[390] Omental dh si s gg ting re uit t e t ute me p egn ney P Gairanii Clu t t 0 4 xx 436

Int autem pre cyfoll sw to lipe ga cy thee see is tentil pr m ca on y ten il He Lydensus Am J Ob t & Gyme 19 3 Smulla cost pran cy 1 both tubes H Sentense Cost pran cy 1 both tubes H Sentense Particles of the pran cy 1 both tubes H Sentense Particles of the pran cy 1 both tubes H Sentense Particles of the pran cy 1 both tubes H Sentense Bull See do bet et d gyme 0 1/6 Abd manah p m noy E A Butl and J Obsa Add to the pran cy be must be me cy 1 M vas

A cae of prim ry bd minal p gn cy J W wea Funska leck sell k handl p 4 lx 1 433 Th de el pm t f d cid at s n th ag d ing p gn cy h Utesco-Strooan wa Ze t lbl f Gy a k 19 4 1 m 855

The ôle of cost prem t ruptur of the fet 1 membra es nd1 th d eases f the puerpersum I vov BUEBEN Z ntraibl f Gynaek 10 4 xl m 3 0

The p s ge of typho d agglutt in fr m th m th r to th fetus Par II Experimental tudes in mice P WICHELS 22 th f d ge sper M d 1024 xlh 447 P at 1 appe d ct s with ruptur a d d tath W B IIIIL a C C MASON Am J Dis C hld 9 S x 1. 741

R port of c e it b s dor als compleating preg nancy R N HAMBLEN Am I Ob t & Gynec 1025

r

4 XX 457 Hype m sisgr d rum t ted with blood tra fu ion D Bissell Am J Obst & Gynec 924 ix 118

Desisted Am j Obst & Gynec 924 it the
Th psychic timent of hyp mes gravidarum G
v Worr Zent libl f Gynec 924 xl in 964
Some obs r ton p n th glyc sura of pr gaa cy
J T Williams Bosto M & S J 95 c c 163
Toxem of p gancy W Prariy Hahnema

If g c dton delmp F Orizz Z nt lbl f Gy ack 9 4 1 88
Mat nty of p gn cy a d clmp L Bren stunt
D tatt be kfort 9 4

The Immati of elmp a cmpl to of peg ncy G B Malle Am J Obst & Gyn 925 L

I tr p ton 1 sod m-chlo id inf so s in ob tetrics dgy col gya d the t tm nt of ecl mp a a c d g to G nter T HEYNEM N Ze tralbl f Gyn ek 19 4 xl n 1946

Casa n sections climp C B Ingraham Colo

Th rape t ab rt J DE TORRE BLANCO A ch d and rug yespec t 9 4 x 1 533
Th att and of the gynecol m tt a d th q ton of a the x b to J S G LANT Z tablif Gyn k

9_4_al 978 Ided boun Coaran ara R méd d Uru

gu y 024 xxi 46 The ctreet im nt f borton with fe r W Simon Mue he med With sch 1924 kx 1 93

Miscellaneous

The relats n I the female g nital to the basal metabo-I sru L KRAUL and G HALTER. Zes he f Gebreh m Gynack 1024 izzavu 606

Studies in men trusts a the carbohyde t metal h m

P IREY Khn Wehnschr 1924 : 1319 Sternity in wom n I Process South M & S 1925 1 2271 17 Con rns g con ept on and steril ty H Famena

I br k. f erztl Fortb ld 2024 zv 1 The treatment of dysm norrbors and stenhty !!

19.4 344

9 4 1 505 Ect pic denomyoma po tope at e invalions of th bd moal will WSL How nd A F Marte Arch S 12 2025 15 A c red case of chononep th h m in the bro d her m at E Exceltrony Monatssche f Geburteh, u Gynaek 1914 lev 25

Chronic backache in grateology D Datast Lanc t, [354] The cult att n of g n occi fr m the portion a d the urethes W Romera Zeotralbi f Gyn ek 1924 l 1

the sper fic non- peculic tr tment of complasted gon r horas w men a the o-sate a & C I K. Med. Ala 20 4 33 919

F Edinburgh Ob t Soc 217 F Edinburgh Ob t Soc 217
Abdom nal hyst rectomy to hyd t form in it. To
se we. R med d Uruguay Us v Mont video 1914

F ye rend t ults obtas ed a caremoma of the f male pel c rgs s with sp a lef renc to rad m and X ray therapy Il Schutts Surg Gynec & Obst 924 EER 775

En ly po t p rate e ob tru ti gyne ology S Nos f dR Dougetag Gyné t bat 9 4 182 (387)

OBSTETRICS

2

In

Pregn ncy and Its Complications mn G Schel Arz Age and th first co c pt Ze ir lbl i Gyna k 924 zi n 8
Th early diagno is i p egnan y F B RACH Ti en med W has br 19 4 laxiv 14 5

The practical all of phil day gly o una in the day os i pregna cy M Ha rix W kin V chase A case off
A case of methods to the rhy diagnost ip g
as cy M New M take i Geb ish u Gynacl
of level 63

S m of the bstacles reta d ng the p gress f mate mity a d infant wo k m T 5 H GARST Te 5 State JM 95 x 50 T р

The obstetrical eminar particle obstetines in twenty lecture for physician and tudents W Liepmann Ber In Hirschwild 1924

Wehnschr 1024 lxx1 779

Zischr f Gebu tsh u Gyna k 19 4 lxxx 11 653 Attempted blood transfus n in weak p emature infants Guintor and Shouy B Il Soc dobst td gynec 1924

11 7 T Se e anamia in a n whom child G SUESSTRUNK Ztschr f Kind heilk 10 4 xxx in 587

Miscellaneous

Ar 1 w f the prog 3 of obstet ic d gynecol gy f r the yea 924 H B MATTRENS Med T mes 19 5 lu 11

9 4 I f 4
Th preve to a of syphile to hospit is he dling obtetricale se E Klarten W: kli Wchn hr 1024 The b the passes as yphilit with a dithe method frombat gayphil E Klaften Ze traible f Gynack.

GENITO-URINARY SURGERY

ca

Adrenal Kidney and Ureter

A c s of supra e al tumo with d generati n of the

Re al tube c losis C A R NITCH Lancet 1025 CCVIL I

A] 1925 x 37 St d 81 Add so dise L G ROWNTREE J Am M As 10 5 lex 1 327
The differ nital dag ss a day tem functs 1 ds tu banc of eph opt s O 5 Fowler Col rado Med

19 5 2

Pychtas in inf y and childhood V B Dowler C ad a M As J 925 EV 41.
A un ual cas of py ephoto tons C F Hu maro, J Jow State M Soc 19 5 5

19 5 RIS 73

.

1925 am 29 υ Prim rv th. 19

f prol Chi 924 i 5

Late results of prestions for naile lead J RATS current J d ol med et h , 924 m 207 [399] Malgon t p pilona f the kidney p l as G G Smith and A C Git zar J Uol 19 5 u 5
Th ad antages of th t ans se incison of Bazy in s 1g ry I the kidn y J ABADIE. Bull et mem. Soc n t. d chir 19 4 1 0 7 The ad antages of trans erse incision of Bazy in a rgery

I the kidn y P Bazy Bull et mem. Soc nat. d chr 924 1 1074 Experimental research o late sutu of the kidney RONCOROM Arch ital d chir 024 207 [399] Complications I nephrectomy R. Fao Strein Zischr [399]

The m n g ment of illness s sulting f m po tabort n nie ti n Alglave Bull t mem Soc. n t. de ch r 1924 1 1082

Hyst rectomy for uteropl cental apoply Octav o Rodrigues Lima. R d gynec debst 9 4 x 1

XXX IC

H.

Labor and Its Complications

The rate alle dues of labo II S F sr Califo o & West M d 1925 xx 61 P stunte n a su gr al pro ed re M P PLEXER J

215 E3 Hand to ceps and G rmany s on sears I reeps jubs ice H PETERS. Z ntrathl f Gynack 9 4 al m 793

D tora due to the cervic J G DE SEATANNA R d gynec a dobst. 914 v 41 Dystocia from neoplasti rigidity of the interne erv v. L. Vallors Bull. Soc dobat, et d gyaé 1924 21

Dystoma as a result of the ab orm law 1 th thorax CARLEVARO Rev med. d Uruguay L

tg 4 11 500 The use of no ocam in obstetic N P Ricker Am. I Obst. & Gypec grs it as Ged ma and hype t us o i th ut n labor and the purip n m Turenne P [392] cross d méd d Uru guay Unit Mont den tg24 hr 4 5 An o arran cyst emplicating labor N Possire B t M I 915 1 18

Subcutance a mphysema I flow g t be report of ase P N CHARRONNET Sure Gyp c & Obst o S 201 12

Obstetrical in ers n of the uterus W H FISHER Ohi St te M J 985 xx 19 Maternal bi th palsy C Lambrian Brit J Surg

1925 E 554 The tre tme t fut rine ruptur dun glabor Ga cia SAN MARTIN Rev med d Uruguay U M te adro

DJA XXI 467 Publiotomy and symphysi tomy E ZARATE Regent decorst y ginec 1924 in S3

I we ty f y ri exper ne with exesures se t F Blann Ze traib! I Gyna k g 4 ziv 1630 Abdounal casarean sect n nde local a zeithe Pout Outlas. Re méd d Urugusy U 1 M mie deo

10 4 XXII 448 Carsarean sects n for physome a with t tantzat of th

uterus during the course of labo L. DEVEZZ Bull Soc d hat t de gypée 924 x 758
Temporary steriorizati of th ut rus ft ress e a

section and its replac m nt n th abd m alt f ty 6 e days P Guernor Res fra c de groec et d'abst 1024 XII 183

The iwe real casa The I we to all casa section—its ad tages I k Quicker N Y k Stat J M 1925 x 40 The e stan o scars in the leve segment fith ut ru F CHATILEON R franc d go fc. et d b t 10 4 xtx 577 Ruptu e f th tru in asa used wim WER R Ills ous M J 95 1 m 39

Puerperium and Its Complications

۸m 3941

Ant o hypophys Im dicat nanute in a bin of to n L Poscer Bull Soc d bat, t de gynec 19 4 2) 744 Ecl mps with c r bral hem th ge in the pu tperium

L C KNIGHT Ille OIS M J 19 5 xl u 53 A cas I portal the mbos s in the pu reenum Lin en MEIER Mo ats ch f G b rtsb u Gyn k o 4 hr u The el to n of g nital tube cul sas to p erperalism A

FRUIT SHOLE NO P F UTLLADE Gypec t bt 1024 3 1 The scent f go rrhom in the purpers in and alt abort o J Franz Dissertat o Frankfo t 924 [39: Met state p speral d a a particularly thos follow s gg p A Mayre Arch. I Gyns k 19 4 cxeu 68

Dou in nihe theu for ero als pas HR AND ENS J S FAI B IEN, R DED SELD and the is I or R y Soc Med Lo d gas m Sect. Ob t &

Gyrac t The treatm t I p rperal sepsis S H HAIRSTON N Olans M &S J 9 5 lzx , The traum at fpu reer | epsis with cil dal metallic mint res G H Schnerge Ahn W has he 1924 m 15 0

418 with the utilizant sail ras treat Fu th re penen

Newborn

d man g m nt l th ТЪ utı

Buth t a mata a d th m rightly of th wborn the Fra k first day of he I' Z Gryrsce r Diss riate 13977 (t 24

- II PRITTE

١

U tropin and methylene blue in urinary tuberculo is H Blane.] die of méd t chir 1924 2v21 3 B 1807]
Difficulties in di tinguishing tetwern urinary tones and calified abdominat glands A L Chore Boston M &

5] 925 exc 1 51

M litiple unnary calcul 1 Abert Kent ky M J
1925 xx 1 40

Recurrent calcule in the general trace F T Lat

Am M As 1925 Ixan 72 [407]
Lipiodol in the mentigenological aphrat on of the unity tract J A SARALEGUS Rev Asoc med argent 1924 xxvii S c de med 1 terns 27

_ Urological methods of diagno s n infants a d ch ldre

Report of dathermy in prology A G Fleeschman I

SURGERY OF THE BONES JOINTS MUSCLES TENDONS

Conditions of the Bones Joints Muscles

F the observation on the survil of bo after mo liem the body S L HA s A b Surg 1925

R J

21 v 462

Radol to 5 v 7

Th duf rent id agrees of p nost albone is one if

A contribut to the kn wiedge of p thoge ess facilities the culosis A Kozin ny JB o & J ot Sug 9 J v 3 Osteomy has diag os and trate at the J H White

J Oklahoma St te M As 10 5 x m 9
S deck a bone t ophy H HERRARIE Ben klm
Chr 194 cx x 11 165
A case of osecous m tasta from primary ca c ma f
the nght mamma 5 x G T Brarson Bert J Surg

1093 2 47
Err s the X ray diagno 3 I o t ogen sarconn
Err s the X ray diagno 3 I o t ogen sarconn
II L Brur An Surs 10 4 kxx 730
Arthint of the menopa 3 a tudy of 6fty a.e.s R
L Cr 11 d B H Abch a J Am VI Ass 9 3
Rheuptat d arthints R Stol man Gla gow M J
1038 108 1 73

Non spe fi th gy n h um t id ribnits D Camp sent Glag w M I 9 5 n 3 xxx 79

The m t bolism n arthmus A W Rows dR S

La ct 924 ev 12 7 [469] Rad i r RNE H7

Myosit TP N 1 Spasmed c terticell s J M T FINNEY ad W Ht on

Snappp neck A SAXL Wen med Wehn hr 1934 by System and the cere cri rib—by maldevel pment o by press symptom W. W. Balckwar and H. Mines S. R. Gymet & Obst. 935 & 138 Two cases of c vical by W. Streeps Med Rin

9 4 xx 35 W SEYFERT Med R

i ode A localiz d affection of the apine suggrating steechon dritts of the ert bral body with the clinical aspect P tt dr. ase J Lauvi J B n & Joint Surg 1935

Byphil the pondyl us R B Copietr and C F LIFTER
J Am M AS 1938 LTZ 174
Tube culo spondyl t and tat eaten at A Bruen
to Kin Webnsch 19 A 19 516

Spondyhus def rm n R L kna cs Brit J Sug

19 4 L 2 54

i tun

1

Phy patholog cal research on the most r function of the ureters F PENTIMALLI Sperim ntale 924 brs in 457

Comments upon acut p ostat us G Villar R v

10 4 1 St The sugry of deep tteral stors E Josepha d H Januar Zisch fur i Chr 19 4 xvi 535 Dladder Urethra and Penis ' 1 1 1024 x 1 470 14021

1 1

th

tin Bull 25 24

Clin Bull 25 24

A are of late record nee of a c ma f th tests M

Fassen Burnch n med W h why 10 4 k 1 808

Miscellaneous
U ological n m claim! I fallacies d smb guiti s C
C Mark \u00e4m Med 915 xxx 7

The eti logy and priserial in of so-c ll dicath ter cyntin il Casor ad J L Loons j Mich gan State M Soc. 9 5 222 3.

Di secting gangren us cystits Costavrint Bes Ascont and Dubouthers K v de chr P r 59 4216 500.

Introvers a first as i became the neutration of pot operation under viet to a L Che task I etc. and Far to a axio Roy.

The cause of the mat to justical has to did (400). The cause of the mat to justical has to did (400). The cause of the mat for the mat M (Marson Canada and M As J 9 5 3.

Che ping field winnary act use in 5 bet no axio pivel tos C.R. STRUCKTER. 21 the fi U did a x to 159.

Blood ancheu in V. O. Prozesses Med There is 159.

med arg nr. 1924 zxx u Soc. sge t d nol 73

Elect occasul ton of bladd r tumors C Brunia d S
COLOMB NO Rif rma med 1924 xl 118

[803]

The cholesterol a tent of the blood in lation t g natenary sep is. W MACADAM and C SHIRKIN LIST J

The train not of a etheorectal fistula F VOERCEER Zisch f Ur 1 1924 2 2 3 3 4 483

Genital Organs

An expe mental contr b t on on the phys op thology of the postate del r of the ost my L. Torcusa A Arch tal di chir 9 4 x 357 [404]

Fractures and Dislocations Uncomplicated dislocation of the inferior radio-ulnar po tio

1 1

t 1935 wu 51
Transmitte fu at n of the hip in childhood Rendu
ong bon s—
E CLOUGH
A GRIEF AND A COUNT LEAST COUNTY
A GRIEF AND A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A COUNTY
A

chir 19 4 I

1029
Ostcosynth 5.5 Mathieu Omerfinance a d Freder
Bull timem Soc nat d Chr 1924 I 1035

...

B

A VAN

Cynec & Obst 19 5 2l 11

The treatment of wounds in compound fractures of long b es F Brekkan S 12 Gynec & Ob t 1925 2l 12

The talm at of brome reurr t desocate n of the shoulder by crue I caps 1 pleat on W L ketter and the shoulder fractures F J COTTON Illno M J 9 S Fract red s) cat of the h dofth kenter W W LABRER J An M As 95 lare 156

A method of tr atment of fracture of a single condule of the I mur with displacement be the risk of it b distal fragment t the populat space L Strengtre Brit J Sung 1925, 430

The us of plaste in the treatm at of fractured femura W M Fixon B [1] bus Hopton H sp Batt.

Fract e of the est rollo dyle f the horse with

"C gental lu to of the patella and arephy of the et mi condight. P Comprise N et curing dels to March 19 at the State of the patella c pu lorb pby F Parrs B II et them Soo. But declar 1994 1713. First tur of the spie et the tub. a throtomy extruct of the first Comprise D it et mem Soo. nat Us used as effect not the through the Comprise D it et mem Soo nat Us used as effect not the this to diving the knee point. W B Swritz Evans J Roy Army M Corponit. W B Swritz Evans J Roy Army M Corponit. W B Swritz Evans J Roy Army M Corponit.

9 1 43
The observed a fract of the lib w G v
Bowner B II of mem Soc n 1 d hr 0 4 1 2 78
S pr d larfra fh how - 4 1 2 78
Re d
The

on usi as of lact re of the this in olving the knee point W B Swrite Evans J Roy Army M Corps Lo d 1935 Il 46 The tra scala a laub-Achilles route applied to th op a treatment of criain fract re of the ank! ALGLAVE I II

786
A wre chi t tatm t i e t m type of Colles frac
t e H T Wikke J B & Joint Surg 9 5 vi 18

Orthoped cs in General

The probl m i the th ped cl tue R B Oscood

J Bon & J 1 S g 19 5 1 5

35

SURGERY OF THE BLOOD AND LYMPH SYSTEMS

0 4

A... 1 A.. 95

1924 EXXV 412

Blood Ve el

The effect is ocain pray in solit s the blood press re II STEIDLE and O Wa MANN Zisch if d ges xper M d so 4 l 369 The anatomy of the tumbosacral region in relation to sciatic pain. M. S. Danforth and P. D. Wilson. T. Bon & Jont Surg to

& bass operate a recovery G Evans

Ett | gy of pseudoc x | gua entical sure y f the congenital the ry with a reply G PERRYS and M JANSEN I Bon & Just Sure Th

195 I ternal supures of the k er i

A nee straight at g d v e L D Sutte J Bone & at Saig, 19 5 % 200.
Schlatter's disea e M NAV Neck Arch Iranco-belges

thi 1924 x 5 795. The traim t of high g de rachitic d I mutles of the ier E SCHEPTLANN Bet kin Chi 1014 CTE

Loose bod es in the ank! joint, G H STEVENSON But I arg 1923 2. 6 1
Ball foot an t uncommon d formity of the foot. K GARGELY Zentralb! f Chr 10 4 1 1786

Per carus M HACKENBROCE Erg bo d Chir u Orth p 19 4 EVI 457 The ertion of some f the foot m who

a h == ====

cl

nıf

1

f Alb n Koehl r disease of the Tw dditional ca pro d m tat real O ENGELEE Klo Wehn th 19 4 141 1120 Histol go al findings in so-called lun t in mal c --

nd et z kin W TRUS

Late post tra matic comp ession of the calcus. H L SCHOOLDER J Am M As 19 5 lexel Bo Exonto of the cales on L A Tanini Re chuz (de Bueno Aires) 1924 III 76

Surgery of the Bones Jointa Muscles Tendons Ste

Tw aty fifth repo t of progress in orth ped c surgery R B OSCOOD R SOUTTER H C. Low and there Areb Surg 1925 x 217 The orthoped c operating tabl of the Su gical Up r

sity Clinic at Leipz'g A KORTZEBORN Arch I o th p u Unfall Chir 1924 xxu 272 Persarte al sympath cromy in the tre um nt i bone and joint tubercul sis I Sepastyt Zentralbl t Ch

1914 b (18 The tran plantat n of preserved t nd ns F WEIDEN BEIGH Ach I p th Anat Phys I 1914 cd

A sew m th df r the imp o em t f tend n sutures after funture of flexor tend H Russ Arch, f kl Chis 1924 CXXX 757 A cas of eplacement of fiv m tacarpai bone by five

metatarsal bones Litoute Bull t mem Soc n t d chi 1924 | 1031

8 stos Arch

vantages A 1024 EXVII

the hospital p o thes a L GREATURE Re do th p 0 4 KEB \$27 D script on of an instrum at lo wedge g casts A E.

M J 1025 xxviii 4
The tretment of fix n deformity of th

(4 1) m indu trial surgery W L Ests An um til 5 rg 1025 2 zt 64
Triple and q drupl amput tions with ca e epo ts S S GARE South M J 19 5 70 48
Amputation of both lambs P Dovar, Bull. t mem Soc at d hir 924) 000

The car I she til gh tumps T Korilike Zischr t sthop Chu 1924 xl : 1

The description of ge rai utility son to sphera
t fithe kn e so t A Krina J B ne & J t urg

Sympoct my dit pdrm lin the ke A Strewnier J Am M Ass 975 lexes 16
Two had ed cases fproshet foot tab least fte the meth diffice O L Melers J B ne & l t

ψō

ly

ŧ

Fre tran pl tatt s N w German a rgery edited by II K tiner Vol 26 E Lexea Stuttgart E ke 1924

A o e handed surgic l kn t W J Suzziwan Am J S tg 1925 XXX1 8

Vaccine and at mulation therapy in the modern treat ment I wo ads G Worksonn The ap d Gegenw 10 4 lx 250

Anæsthesia

Ass 1935 Exxiv 358

De th reation by carbon d xide inhalation E B CHRISTIANSEN Cal form & We t M d 10 4 167 [417] The flect of chlo of rm pare is ponth p opagat n

and d terms at a f sex a white mice G Doerpler Arch f m ke A at gag el 400 Ethylen A B LUCKBARDT J Am M As 1024 1060 (418)

Lu co

14181 WATEMEY

on z ad F WIRE

Blood pes re ma tena ein sp l nesthes a W A
STEEL J Am M Ass 10 5 kerny 70
Lumb c anesth sia fall g of th blood pre sure and

the a m t system H ZIEGNER Z nt albi I Chi 924 1 1163

The natu of the fall in the blood p e su e ccomp ny ang I mh fί

F the expen n es with splanchnic angesthesia Merce De tache Zischr f Chir 19 4 clauxy 368 P gronal and h id block anaesthesia in ext emity su g D C F EIKENBARY Ed M LANGWORTHY I BO &

P cas e an artificial coca ne E Warson Williams B t M J 10 5 S prosed o ocain po soni g T J HARRIS Laryn g scope gas x

Antis ptic Surgery Treatment of Wounds and Infections

esu e nditmal ga of hithy person it sek with tin A By Ello a d O Ranket Ach f kl 10 4 CXXX 660

Epenm tal 1 e tigat n b ct al infett s n a thinly p du dhem tom ta O Thomann B tr kin Ch ora cressi 274

kin Ch 024 cxxxxx 374
Th quests fithe; t eserum tre tme tofteta s T DERVIS Med Ki 924 x 14
Some 16ws is the t al tre tim t of tra mat c
tetanu (lock) w) W RIZYHOF Springfield M urr

tetanu (lock) wy w rata me.

Cl Bull 95 116

Th i timet fittan sby pid rly eto of o o
c S Lot rap D utach m d Wehnscht 94 1 5

Integal th rapy fifet d w u da (with the p i nia
omn blo d) Z nt hbl f Chir 94 1 55

min and fet s-ge llocal a dun ry The time need of ct sage I local adden by with the time n s ject of mercu ochrome H II John Sug Gyne & Obt 19 5 197 Co cerning n nitestm t Morses ma description

D tsch md Wch ch 924 1 1169

per cent LIBOWITZ f d Klin

Co to ng cal m hypothi at M Frenz and E

2924 I 14 o Ħ

T-

17 4

Clin c l e mi ati n of the capillari s in man. A G CULLAUME Bull et mêm Soc. mêd. d hôp de Par 924 3 1 1663

Blood Transfusion

The val e of blood & a slu on 1 acute and chron c anami O knoon Zentralbl f Gvn k 1924 zlvi

1925 1 157

Arterio enou a e rism E Holman, Ann Su g. 024 itex Bot Circulatory distu ba e nd h a t changes att mo-

Arch : aun Cur o 4 tans 4 A case of sort c embol m of mitral ong G TURRETTINI and R GUDER Re med d la S ase

Aut tra sfus n L II APPLEBY Can dian M Ass] The tanf on f tgn us blood with a fatal res lt

The tan I on I to be seen a self to The ad antages of race benzol as an the tran f of blood C Flandin B H t mem Soc med d hop de P anticoscula t d A TEANCE 1487

.. 1924 3 2. 21 1130

Lancet to 5 xl 2

1935 1 2 2

ry Monres rumay U Brit M I

Aneurism of the plen c a tery B F Davis J Im M Ass, 19 5 laxsiv soo
An ab ormal sternat jugul r n A 3 E C es Innert 1925 ct 1 5
Innert 1 the vens ava d g n phr ctoms A I Injury t the vena ava d g n phr ctoms A l Cnore J U ol 1925 u 43 The treatm nt I a c e ulcers J M Haves J

A a.e f epsis with a e e f not nal d t bis f the bronat p tic pparat E Givet nea Med

hi to 4 xz to73

Reentg n rrad at n of th spi C reg r d bood coagulati n F Brz nazp Arch i bin Chir to 4 fz

Lymph Vessels and Glands The end t us for perate a in the tr tm t f t ber c lous c ree al lymph gla ds J M Ha rosa An S tg 9 4 laxx 885 C ng tal lephantias of Earthur Se a d C C Young Am. J Di Ci ld 9 5 xxx 59

SURGICAL TECHNIOUE

Operativ Surgery and Technique Postoperative Treatment

N w German surgery u g t op r m ns P von Bauns H Auertner, ad A Trezz Stuttga i E k Textbook of su gical operat n Ed 6 O Z tms KANDL Munich L hmann 10 4 A weak point a st ribit g m thod K Black Bra of I 1925 1 2
Theus fian naol to afred 1 fett fishels
W L Porozno Z tralbl f Ch 9 4 1 1969 I the band

45 4 n

L pus in its sure c l'aspects W S HANDLEY Ann м

Surg 1925 | XX 9 G norms and a sociated p Imonary t bercul a HUBER Bull et mem Soc med d hop de Par 10 4

3 s xl 643 Gangre e associat d with pulmonary t here lo is G CAUSSADE A TARDIEU nd G ROSENTHAL B II et mem Soe med d hon de P rozs 3 s xl 1607 A case of mycetoma brachii (madura arm) J CATSARAS

Arch f p th An t Phys ol 1024 ccl 44 Report of case of symm trical g grene following an e cess v dose f p tuitrin F M Holsciaw d J A BOOTH A h Pedi t 1925 lu 64

MERTENS Mun be med Web sche 1941 8
Stude in t mo mm ty Part IV Immunu ince p ments with th n m X M Yawauchi Zisch f

h that sch ro 4 xxi 3

Al tiple fibrom to a see with o e fib ome enl rg g
int th stom h E Should ce Can dean M A J Cl al

al dhi tol gic l bers tions in the tre time t of copl suc d ea s by comb led methods W L CLA z Med H r ld 19 s ls o

Th tr tme t of cu ring pap flom A MALA ASOS Ztschr f ur i Ch thehr fur I Ch 9 4 xvi 1
The cance p Flem C J McGurren J I and t 19 5

What the I to hould know about

OB 124 M n sota Med 925 vis Ess t l ha ten tics fam I grante il A CARREL JAm M Ass 9 5 1xxx

S TEED 57 M F ENGMAN J Am M A E tern 1 e´

Thepretsits the betoft mrs print A ly in C Strenger V van Springe 424

Some nlat s fth c ce prblm A C van Springe 424

Some nlat s fth c ce prblm A C P TEN 75

Ih d lpm t feprim tfta e ce ad th Illreg erat HT DEELMAN Zisch gf

The relit nof tune glowth to na tribon and metablim Prit Stides not highest of the important following the bohydrat for the growth frate remona M t nd h. Tapenuma Zischr f h ch f rich н 283 0 4 Th so f s f th m ten ! f growth of m benant

m rs E FRE and G KAMT ER Bochem Zische آ " 4 و 45 Can and to ell I ffinit a path I gie I budding rm t C S Engel Bel I fanck 9.4 1 rm t The sat [car AT BRAD] Cance oze

The occurrent freeplate betterausch men alee F. Blum Nin H. Auler d.P. Merre Zische I. K. bafersch 9 4 387 Khn Webusch 1934 m.

The elucid ton of canc r L W SAKBON I Capcer 1025 1 37

Spinous-cell ca curoma L A TURLEY I Lab & Clin Med 9 5 272
Unusual features f carcinoma H E Robertson

Munnesota Med 1025 vu 1 Cane r pre ntion versus cancer control J HALL EDWARDS I Cancer roze ii 13 The natu I durat of ca cer S WYARD B t M I

1035 1 206 The diagnos s of canc J Ewing J Am M Ass

S coma n the basis f ch onic i ff mmat ry and z g crat e proc ses A BECK D utsche Zisch f Chi

1024 CIXXX 1 255 Tw e es feare muin hildr n D R BLUNY Lane t

1024 CCV A case of so-call d an urism f the sacral boll w of the pel s with chaucal observ tions with I fere ce to thers com to F LEMPERG Arch f klin Chir 10 4 CXX'0 487

The t atm at of mal gnancy G F THOMAS ad R G CRES Oho St te M J 1925 EM 5 The m d calcure of c neer H T CRONE Med Times 1925 li

Isamus bl. and mal gnant tumors R Roosen Ztach f Kr h forsch 1924 XX 248

The fiect of electropic substances on experiment im like in the mrs. L. Kanchao L. Treomers and L. Baros. Zischr is Krib frich. 1924 xxx 273. The teatment of kin can r by electro agulatunce junt tone without tell gight the rays. R C Louise Erny.

J Ħ Obst 925 2l 207

M

[432]

General Bacterial Mycotic and Protozoan Infections

Focal a d gen ral mi et ons JO Bower Md J& Rec 1923 cxxx 7

Blood stream infect on tre ted with mercurochrome 2 intra enously E B Pipes Am. I Obst & Gynec

1925 1 17 The preparate n and neget 1

was a hu in med Whaschr Î

ı

10 4 bzu Som experiences and res lts in the conservati t cat ment f urgical tuberculose by th Calot injects n

PHYSICOCHEMICAL METHODS IN SURGERY

Donner		
	enology	

Bnt. tu L 3e hn

Dr. ger 1014

Photographic da k room illum nation and fluo oscope da k room ill minatio E B KNEEP Rad ology 1925

935 1 56
Rot the therapy—its p ment tot s a d recent de velopm net W H Dieffenbach J Am Inst Homorop 19 5 X 1 13
Some fu dam net sederation in redum and V ray trapp C D Edition Am J Surg 944 exercis 19

Radio-act substances a diff i therapeutic use and applications end-o-a ti ty J Muna Radiology 925 iv 4

45 Radium

n µ

Miscellaneous

A survey of present-day electro herapeutics S high
syniz Lancet, 9 5 evg by

FRANKEL 4. Isob I could the International for the base I the no puon face ty des toy Liesenstein Stahl in therap 914 x is 33

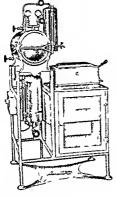
The rornigen treatment of sup Scal ep their mais C W Francis Hishs man Mosth 19 5 ir 35 Observ to son the eff to Y var virad at moss some inc a dm with carcinoms F Kox Strablestferags to A NV 35 C

MISCELLANEOUS

Clinical Entitles-General I hysiologic 1 Conditions Shock H C CL PK Kentu ky M J 9 2 211 29 A cuse f tra m t h ck COUNTY P 9027 d Mocquor B B 1 them Soc n t de br 9 4 1 885 Senous e nd u n pl th thigh tra mati shock m

p tab recovery Leveur and Mocquor B it to men Sor n t dechr 19 4 1 8 8 [422]









A Sterilizer of Many Uses

It dpt t t TI 16 1 g 8 wd d6 d p h td wtb ml 1 gd p db 1 p p d wth p f td I tm t 1 dd g k Th St 1 f S g D g m

b p d d 1 deckby dth g g d
tth p ith j k t p a d
m th hmber

Th W t St i T k ml g l
p ty d g dt t l w t t 5 lb p
o f MSOUTL SIRRILZYTION
t g p d w h g g g to b t t

T the st p t b t b t

E th U l p t t b t
t t m t f g ll p ty

E ll dl m d t t p COTI

This is Pdt bt Sifmyon tDtbt
Ith token del widtt

THE KNY-SCHEERER CORP

119 Se nth Ave Dept 184

New Y k N Y

meth d T Font. fuen hen med Wehnschr 1924 Inn

The ton facult in on the blood and c ream tasues of r bb ts with part cul r eference t been of you 205

Ductless Glands

Surgical Pathology and Diagnosis Expensental studes direct dit wild the billogical

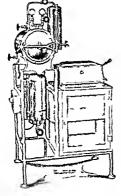
1

19 4 Cx 36 Ge ral d special sure al diagnossa a textbook fo

Experimental Surgery

I 1935 Ivu 34
No et (utreptother) inf cu 3 F E Wooders's
permental insettigation on again is W Luma Arch Ophits 1935 I 12







A Sterilizer of Many Uses

d del do liv ding The Wite Stil Tkiml glln ptydgdtil trtilb

t d tilng tt hm t fon f ll p ty

E c ll thr m d n thy p ted nd

tt t pp floo sp of l 34 h by

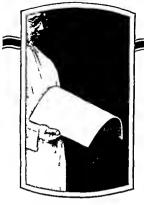
Th hash Parell "If my iDibto lik ipply; apl wider

THE KNY SCHEERER CORP OF AMERICA

119 Se th A no Dept 104

N w Yo k N Y





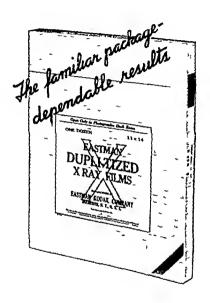
For Single or Double Screen Technique

Versitulity is an important merit of the Patterson Cleanable Intensifying Screen. For it is so thin and pliable that it can be used as an upper or lower screen in single screen technique, or two Patterson Cleanables can be used in double screen technique.

A booklet on the proper mounting of single and double screen will be sent on request, without charge

PATTERSON SCREEN COMPANY
Dept SGO Towarda Pa





Eastman Kodak Company

Medical Division

Rochester N 1



In the Wake of the Tornado

The ensure forming annum-

of invaluable assistance. The flexibility and east of operation for which the Mobile Y-Ray Unit has long been famous is accentuated by its adaptability to such unusual stress and hardships. It is indeed in ideal equipment for office or hospital use—standing ready for immediate and efficient service under all conditions.

D scripts and Specificator or egs t

The Engeln Electric Company

as and Physiotheraps Equipment CLEVELAND Office

white the transfer of the state


Keleket Diagnostic X-Ray Unit

AGVIN Exclete the trible is a standard in Vrig development. Consider these advantages

Has famous Keleket Automatic motor driven Till Table—leaves hand free for Fluoro copic examination in any position from vertical to trendel aburg.

Th kikter till cellm tiT be talk littlagul |Laigre| hit literenscop shifts—it betiev t | tp fit til

Thilt protflight shoul like tes Ctbin l

Still k — grot i I Jraip til glen til se e—til Kikt ttt ff il fill orpe of \) pp mat frm whhtmak jusett

-cr write

THE KILLY KOFFT MANUFACTURING CO. Inc.



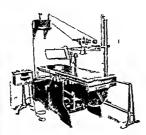
In the Wake of the Tornado

two most recent disasters. These faithful servitors have come through with flying colors and unbroken records of invaluable assistance. The flexibility and ease of operation for which the Mobile X-Ray Unit has long been famous is accentivated by its adaptability to such unusual stress and hardships. It is indeed an ideal equipment for office or hospital use—standing ready for immediate and efficient service under all conditions.

The Engeln Electric Company

Ray and Physiotherapy Equipment CLEVELAND OHIO

DECEMBER OF THE PROPERTY OF A SAME



Keleket Diagnostic X-Ray Unit

ACMN Keleket e tabli lie a standard in Aray develop ment Consider the c advantages

II 1 funou Keleket Antomatic motor driven filt I able—leaves hands free for Fluoro copic examination in any 10 ition from vertical to trendelenburg

The Like of 11 of 1m of The of dias little gul Ref grap ly to 1 lees cope here to be to the ip file il

Tidito-proctfligpti kpilifikt (w. tiprel

Willknwn-grotißhih ugi niltee ce—th kilt lii fillflicope f__ppillnwilt k j selet

- r write

THE RELIEF KOFTT MANUFACTUREN (O Inc. of the law of the



The SIX-SIXTY

X-Ray Generator



100 к V АТ 60 И А

The

SIX-SIXTY

Precision Type Coronaless

100 K.V Generator

Convenience and compactness with capacity



CONVENTENCE

Remote Control Stand

All meters in Control Stand

Accurate means of predetermin

Spark gap mounted on Generator

COMPACTNESS

Occupies mioimum floor space

Can be mounted on wall

Generator measures 22 ins long
13 ins wide 22 ins high

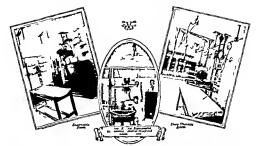
CAPACITY

100 Kilovolts at 60 Milliamperes More milliamperage at lower gaps Sufficient capacity for all ordinary diagnostic work

An ellustrated descriptive bulletin gladly sent n reque t

ACME-INTERNATIONAL X-RAY CO

349 West Chicago Avenue Chicago Illinois Sal s and Service R pre neate es in All Localities



The Maximum Professional Value

SOMETIMES the prices charged for Victor X ray equipment are lower than those charged for inferior equipment sometimes they are slightly higher but not nearly so high as Victor quality would justify considering the manifold advantages enjoyed by Victor users through the research and engineering departments main tained by this organization

In other words there is more professional value in a Victor X ray machine. That value is reflected in the devices which have been developed by Victor research, which are to be found only in Victor apparatus, and which have most notably contributed to the advance of roentgenological technique.

The rare V tor m
chin s to m te ry
conigen lone I pur
rose Tell u the pur
rose a d we will t il
you what V t r ma
hine will be time tit
at th low stoost

VICTOR X RAY CORPORATION 236 South Robey St. Chicago Illinois

Sol Off d Serv Stat dll P opal Cites



YOUR CYSTOSCOPIC ROOM NEEDS

the J BENTLEY SQUIER CYSTOSCOPIC X RAY TABLE It met with universal favor at its first public showing at the American Roenigen Ray Society Convention at Atlantic City January 1925

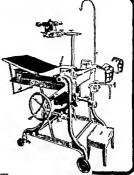
It combines the urologic knowledge and experience of Dr J Bentley Squer with the X Ray manufac turing skill and knowledge of Wappler

It will be exhibited at the American Medical Association Convention Wappier Booths Nos 112 and 114

S d for B II tin No 105-6 ted u

WAPPLER ELECTRIC CO Inc.

Gen 1016 alf diry Shir Reseau LONG ISLAND CITY N Y 173 EAST 87th ST N Y CITY



We Have the Honor to Present to You



a newly perfected Anesthetizing and Tonsillectomy Outfit of outstanding qualities

It is the new Sorense No 460 which is 1007 the cent to Office Portable d Hop tal se because

(2) Snap-fit B tile Hold is d way with ress a d cl mp Set boit! in pl ce : pck t ff-that all (Patent pe ding)

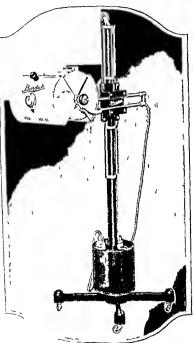
(3) Pes rentoldent does t hildstbck aga the pump h stream pump h saftyval need d

F there pleak fepcliode while green ery deal of the admirable out fit dish we combination for fixed the ptl

C M Sorensen Co, Inc (Quere 444J k n A number Sq. Sq. Mk a ISw Specialt Ch M dPf ent dAg 10 ff

4 . . .

AFTER THE OPERATION



EXPOSURE of the open wound to Ultra Violet Radiation every forty hours will shorten the convalescence period twenty five percent

This was clear by demonstrated by a Massachu setts Hospital in tests covering one year

Send for our Bulletins on Quartz Lamp Therapy and Technique

Burdick Cabinet Company

250 Madı on Ave

Milton Wi con in

The Light Way Is the Right Way

YOUR • CYSTOSCOPIC ROOM NEEDS

the J BENTLEY SOUIER CYSTOSCOPIC X RAY TABLE It met with universal favor at its first public showing at the American Roentgen Ray Society Convention at Atlantic City January 1925

It combines the urologic knowledge and experience of Dr J Bentley Source with the X Ray manufac turing skill and knowledge of Wappler

It will be exhibited at the American Medical Association Convention Wappler Booths Nos 112 and 114

Sndf Bull tin N 105 6 today

WAPPLER ELECTRIC CO Inc.

Gran 1000 m and f ct rr Sh. Keens LONG ISLAND CITY N Y 173 EAST 876 ST N Y CITY



We Have the Honor to Present to You



a newly perfected Anesthetizing and Tonsillectomy Outfit of outstanding qualities

th new Scrensen to 460 which 100% efficient fo Offi P rtabl d Hospital use because

(2) Snap-fit Bottle Hold is d away th rews a d clamp Set bottl plat it off-that all (P tent pe ding)

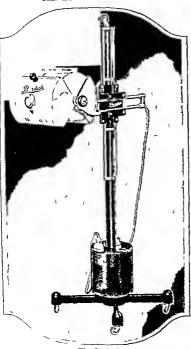
(3) Pss recotldret i does hold it b ck against the pump No stra o

pump N safety val e ne d d ask f spe l f ld Fe the ret pl which g se ryd tail f this dm rabl fit and show mbinat fr f5 dh

(Q sensb Pl Smi f m Tim Sq) C M Sorensen Co, Inc Long J 1 nd City dP f on 1 dAdj t Outfit

Special t Chaz Ad

AFTER THE OPERATION



EXPOSURE of the open wound to Ultra Violet Radiation every forty hours will shorten the convilescence period twenty five percent

This was clear ly demonstrated by a Massachu setts Hospital in tests covering one year

Send for our Bulletins on Quartz Lamp Therapy and Technque

Burdick Cabinet Company

250 Madison Ave

Milton W1 consin

The Light Way Is the Right Way

Hanovia Quartz Lamps

Aloine Sun

Kromayer



You cannot mistake a HANOVIA OUARTZ LAMP for any other

Those who take pride in their quart. lamps value this distinction It is as sembled by skilled workmen who have devoted years in the HANOVIA Plant to the creation of a fine mechanical work

These features with the entire quartz mercury anode type of burners which give the maximum intensity of Ultra Violet Rays should be stron, ly considered

.

Request Set 37

HANOVIA

The Specialist and The General Practitioner both find 'E S I Co



invaluable in diagnosis

III m t d Eye Sp d T gue D pressor

These r de rhed d || strtd | th Cat I gue py f h h will be mailed po request

orar it brack for twenty to 9 or Electro Surgical Instrument Co Rob at NY

Seven Section Skull

Disclosing verything f interest t th Eye Lar Nose and Throat spe-ci list and to th Cran al surgeon

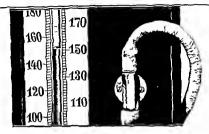


Turbinates amuses and septum are disclosed by the section an the median pl e Th e terror walls of both th maxill ry direct lain set

the temporal bo es

E R MEYROWITZ SURGICAL INSTRUMENTS CO 520 Fifth A 4m

What Makes the Baumanometer Accurate?



Is it because the weight of a mercury column balances the bloodpressure—that a Baumanometer has precision?

Is it because every tube is calibrated individually—in order that each small variation in the glass be compensated?

Is it because each scale is carefully graduated by hand?

Is it because of the wide bore tube the stabilizing cap and other vital features—which the Baumanometer was first to give the Profession?

Undoubtedly

But isn't it due mostly to the sincere purpose back of the instrument painstaking labor devoted to rendering a valuable service to the Profession—

a monetring spirit to which mercury glass and steel are but the tools for attaining a high ideal truly realized in this instrument?

1 d ter will gladly h you y of the fit models—D & Kubay Pocket, Hall d Cab et



W A. BAUM CO, Inc.

100 Fifth Avenue NEW YORK

Hanovia Quartz Lamps

Alpine Sun

Kromaver



One al Pi neers in 1905

You cannot mistake a HANOVIA OUARTZ LAMP for any other

Those who take pride in their quart. lamps value this distinction It is as sembled by skilled workmen who have devoted years in the HANOVIA Plant to the creation of a fine mechanical work

These features with the entire quart. mercury anode type of burners which give the maximum intensity of Ultra Vio-let Rays should be strongly considered

For literature of its use in Eye Ear Nose and Throat conditions Hay Fever Asthma Tetany Rickets Tuberculosis Dermatology Gynecolo_v etc

R a e 1 Set 37

HANOVIA

CHEMICAL & MANUFACTURING CO

CHRINUTET & NEW]

BATER AD

520 Fifth A or

The Specialist and The General Practitioner both find ESICo



invaluable in diagnosis

A uta to g V g n ! Sp cul Rect I Specul

North Ed to ofor Cat I gu by fwhich will be mail d no request. the benef for trenty-f yor for Electro Surgical Instrument Co RhINY

Seven Section Skull

Disclosing everything of interest t the Ey Ear Nos and Thro t spe-cialist and to the Crani I surgeon



F. R MEYROWITZ SURGICAL INSTRUMENTS CO

N w York

Improved Payr Stomach Resection Clamp



HAND FORGED

Blade, 6 Inches

Length Over All, 14 Inches

Price \$25 00

SHARP & SMITH

General Surgical Supplies

65 E Lake Street B tw n W b sh A nd M higan Blvd CHICAGO ILL

The New Method of Blood Transfusion

So simplified that this operation now becomes one of minor procedure

THE difficulties hitherto associated with the transfusion of blood have been eliminated in the new method perfected by Dr. Harry koster of Brooklyn N Y. Its simplicity and effectiveness recommend it to every practitioner.

By this even the di 1000 c.c. e.

t ferred le than usht
min tes o blood i lost the
peratio is t bject t mist kes d reactio do not occu
The d tailed dva tage of this

pparatt are c tained in a pape re d by D Koste bef re one of the Medical Association Send fo a opy sing the coupon which is printed f yo co veni ce

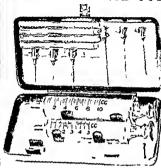
You ried to 1 pecities \$\$ at sat you stal writed \$\$plyd aler Manufactu d by

J SKLAR MANUFACTURING CO

Address S reical S pri

1201

HAROLD SYRINGE OUTFIT No 650



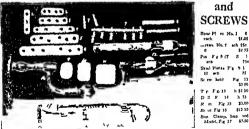
Extremely Compact Aluays Con eni mt FIFS IN VEST POCKET

Conta ns 1 Harold 2c c Luer Syringe 1 Harold See Luer Syringe 1 Harold 10cc Luer Syr inge and 6 Needles as sorted sizes and gauges

FREE OFFER h tfit we will un tan g t blet try brune phat 1 mgm m de by Parke D via & Company

HAROLD SURGICAL CORPORATION 115 Fulton St New York

CUNNINGHAM'S OX BONE PLATES



and SCREWS

Boar Pf es No. 1 wrem No. 1 \$2 75 Skul Pistes F

ur 12 \$3.00 h \$1 30 h 13 \$3,00 \$12.50

Model, Fig 17 \$7.50 The plates are properly shaped so as to assure close approximation having concave sur face on one side and well rounded edges. Holes are countersunk to accommodate screws

which have taper heads Made by V MUDLLER AND CO, ogde & Va Bu n and Ho or Sta Clicago

Improved Payr Stomach Resection Clamp



HAND FORGED

Blade, 6 Inches

Length Over All, 14 Inches

Price \$25 00

SHARP & SMITH

General Surgical Supplies

65 E Lake Street B tw n W b h A and M hig n Blvd CHICAGO ILL

The New Method of Blood Transfusion

So simplified that this operation now becomes one of minor procedure

HE difficulties hitherto associated with the transfusion of blood have heen eliminated in the new method perfected by Dr Harry Koster of Brooklyn Its simplicity and effectiveness recommend it to every practitioner

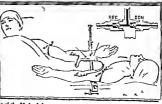
By this new method 1000 c c as tra si rred ; le th n eight ml utes n blood i lost the takes and re ction d

operation is of ubject t mis-The detailed adva t g appearatus are c tained in
p pe read by D Ko te before c of the Med c I Associa
tion Se d i copy sing the co pon which a possible in copy sing the co pon which a printed for

your co venie c You petik pps t s at you v gula surgical rifed to supply & oler Manufactu d by

J SKLAR MANUFACTURING CO Wh I I Only 131-143 FLOYD ST

1291



Carrier CULULUE

W tefo if mat ve literatu e today

Illustrating Our Service in "Seed" i of Radium Eman

DADIUM EMANATION pre N pared for your use in any form or concentration

Instruction in the physics of Radium Emanation-its ther apeutic uses and application

Applicators are furnished with Radium Emanation without additional charge insuring properly conditioned instru ments for every operation Comm a trong add sed to our Med al D tartment

THE RADIUM EMANATION CORPORATION 250 West 57th Street New York City



HARVEY R PIERCE COMPANY Surgical Instruments

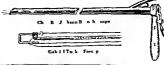
128 SOUTH 19th STREET

PHILADELPHIA

PILLING-MADE CHEVALIER JACKSON INSTRUMENTS

For Laryngoscopy Bronchoscopy Esophagoscopy Gastroscopy Pyloroscopy Duodenoscopy, Retrograde Esophagoscopy, Pleuroscopy etc and also for the Diagnoss and Treatment of Diseases of the Lunes meluding Trachea and Larynx





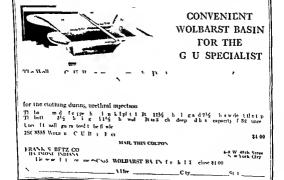
New Catalog Ready April 1st



L i H Ci i Specim n

The George P Pilling & Son Co

N E Co Arch and 23rd St et PHILADELPHIA U S A



A new handle!

DESIGNED to meet the requirements of certain branches of surgery not heretofore covered by Bard Parker knives. The new No 5 handle combines the shape and balance of the ordinary scalpel with the advantages of a B P detachable blade.

The handle is in one piece with no springs catches or other devices to get in the way or to make sterilization urcertain. A dull finish prevents the handle from shpping when in contact with wet rubber gloves.

The surgeon possessing the three Bard Parker handles arolled ng the new No 5 handle and the seven pat terms of blades is enabled to perform a majority of operations formerly made with the wide varieties of solid kinfe

Moreover with a Bard Parket knife the surgeon has a new keen blade for every operation while saving half the cost of resharpening an ordinary scalpel

One No 5 (new style) has dle and one half-dozen each of Nos 10 11 and 12 blades -\$3 75

BARD PARKER COMPANY INC. 150 Lafayette St e t New York. NY



To Help You in Your Diagnosis

The Sanborn Grafic Metabolism Apparatus

The Sanborn Benedict Metabolism Apparatus

The Sanborn Electrocardiograf

The Sanborn Blood Pressure Outfit

Whi h may we tell you mor about

SANBORN COMPANY

UROLOGICAL

In Rubber and Gum

Ureteral Catheters a Specialty

Ask Your Dealer Specifying Eynard

Illustr 1 d Chart on Request

C R BARD, Inc 37 39 Ea t 28th St 1 New Y k



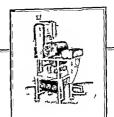
197 E 38 h 5 N w York N Y

40 I TIEMANNS # 150

Wet Dressings
Ls the oft plift In person form Saule
wight 10 0 x 4 x 1 81 00 18 m x 4 x 1s

92 00 1 ull w glt sn ll e ll 81 50 la g ll 8 50 For Burns and Granulating Wounds t l r ated form Will not aftere to wour l

TIII CILKLOID CO Ma shalltown lowa



If you were having a sterilizing outfit designed especially for your own office

Wouldn't this be about "It";

For your instruments—a sterilizer with a foot operated lift that raises the cover tray and contents with one movement 5x6x16 inches—or maybe the next size larger

For dressings — a vacuum pressure steri lizer that turns out sterile dressings dry ready to use as oon as taken from the chamber. The size say 9x19

Then a 4 gallon water sterilizer and a 1 gallon still How does that fit your needs!

The e may differ the Comb

the good—we nally to get; the gat the comb the c

d by th I d g h up t 1

Gldtsdjflldet | wt bout cd

AMERICAN STERILIZER CO Eric Pa

Origin tors fith accuracy resear in thod
if d the g tertilization

E erm Sales Offi 200 Fif h Ave N w Y k Cl y

American Sterilizers





For Men, Women and Children For Prost H mus Presnancy Obesity

Relaxed Sac o-Il eArt ul tions Floati & Ked av High and Low Ope tions t Ask f 36-ware life reted Folds

Mail relate filled Philadelphia aly-

Katherine L. Storm, M.D. frigt ter ? te ter Diene anf Mahre 1701 Djamond Street Philadelphia Smith Bone Clamps For One stive Fractures N Ser w Anall ad



Thise of mos supply a want in bo e surcery met by my oth relamn o dev ce e sily polied and auck ly mo ed, ren in no acrews and nothing is dn en into the bone Lissue

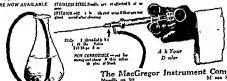
S dl Beatle SMITH BONE CLAMP CO W & torm N Y

Gelpi's Perineal Retractor with LOKTITE

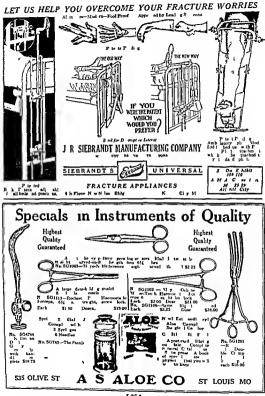


Fred Haslam & Co Booklyn N Y

"VIM" Stainless Steel Needles for Your Dunn Local Anaesthesia Outfit ARE NOW AVAILABLE



The MacGregor Instrument Company M san huantte Needh no 92



A New Chicago Office

To meet the demand and to provide ade quate service in the Middle West for



BOLEN Supporters

and Binders P +On hve

S ren. It Matern ty G topt Here

Send Your Patients or Write for Information to

BOLEN MANUFACTURING CO h Il F ld Ann Bldg Chi go Room 1006 25 Fa t W hinet n St en Off Con h N b

CASH For Back Numbers

Augu t 1905 J nuary 1906

Ed Fax Fel S out

M ch 1906 M ch 1905 Surgical Publishing Company of Chicago

COULDON WOOD PERMANENT ലത്തെ

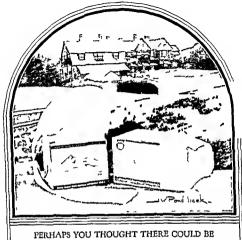
Genuine Faithorn Case Records M be strenfied b th bo termerk. Fai horn Case Record were tharted b th

THE FAITHORN COMPANY Tree or and Total he 500 Sherma Street, Chic co.





Whatever



PERHAPS YOU THOUGHT THERE COULD BE NOTHING NEW IN GAUZE BANDAGE PACKAGES—

Bauer & Blackhaveeverstrayentogree you something better We know that you like handy packages—and ones that are neat and whose contents you know are sterile.

You will find that the new Bauer & Black Gauce Bundage package is certainly handy The cardon is readily opened by means of a patented wedge shaped flap which leaves the carron intact. This is one new if a ture.

The bandag may be applied without

removing the entire roll from its carton, Removed in this manner the roll is untouched by the hands.

Then there is this point that Bauer & Black always wish to emphasize. The bandage is sterilized after being placed in the container and then machine wrapped in wax paper and scaled. This is further precaution applied for the exclusion of dust and moisture that may carry germs.



GORGAS MEMORIAL



OFFICERS

C TI COLING President
FRATEL MAR IN MD ViPresident
G So M RETH LOS, F essure
W 18 No Tr A sail 17 sensor
W H U LOO DDS MD
Secretary

HOARO OF DIRECTORS

LEO B R WE

G L BCRW NITA M

E A S W M D

GRO D TID PITEN M D

R JR AD ED R B IT

A Foundation Controlled by the Practitioners of Curative Medicine

OBJECT To improve health and prolong life by developing co-operation between the public and scientific medicine

VILTRIOD By means of a comprehensive national publicity program to cultivate a public opinion which will recognize in scientific medicine the source of reliable information and the final authority in all matters pertaining to leadth.

Encourage frequent physical examination of the individual by the family physician Poster research in tropical and preventive medicine

ORGANIZATION STATE GOVERNING COMMITTEES 75% of whose person nel are progressive medical men and 25% influential layinen and women, will direct this but health movement

BECOME A FOUNDER MEMBER OF YOUR STATE GOVERNING COMMITTEE NOW and nartheorte activaly in its development

GORGAS MEMORIAL

INSTITUTE OF TROPICAL AND PREVENTIVE MEDICINE

In precent n of the pladd w k I Ceneral Wiln m Crawford G vg x "A Se tof Mankard and a Benefict of Huw n by I breely not or be major if as a member I ble Govern an Committee I fibe og an Maneou I fix that of Tropical of Preceive M dica and d bertly subset bethe of 10 feel lumdred D lis to the \$7 600 000 had was at F d payment to be m do a f lb w s

S'enature _

Address.



An Invitation to Physicians

PHYSICIANS in good standing are cordually invited to visit the Battle Creek Sanitarium and Hospital at any time for observation and study or for rest and treatment. Special climes for visiting physicians are conducted in connection with the Hospital Dispensary and various laboratories.

Fly ci mg od i digare afraya » lome ago ita di commodat mel file » we food ret make ape li ped i ya rejo ni hede ita midrit rate. No cha ge is mad to phy a fregular midel amanta i transit in Especial to forte innest ad midrit stone real grat did pend tum mbers of the phy a film?

A list t d book t t ll g of th O gr Parpow rid M thods f the r t tut on, a copy f the urent MEDICAL BULLETTY sta may be seet f l cs will be sent f pour riqut.

THE BATTLE CREEK SANITARIUM



Camp Maternity Support

ON abdominal support grading from firmness at pelvis or a flexible line at top of gridle lifting but not con stricting across the center abdominal region. The p tent Camp adjustment original and exclusive to our garments provides a regulation as to size and degree of pressure as desired for comfort and growth

In addition to the abdominal support this wonderful system of adjustment gives a firm support through the back sepecially through the sacro later region. In the easy manyulation of the adjustment the support of the entire trunk of the body is a gulated affording a perfect uplift from under buttock to pubsis.

All sagging and over strained muscles are relieved gently but firmly all of which reacts to mental and physical buos ancy. Belts to be worn from period of fourth month to time of confirement.

S H CAMP & COMPANY, Manufacturers
JACKSON MICHIGAN

RADIUMTHERAPY

In the minds of many phys cians the use of Rad um is associated only with the tre timent of mal grant disea e but its use in non malignant conditions actually forms a bro dor field of usefulness

Good t sults are being reported with radium in such conditions as inoperable toxic g t r c rean types of ut run fibroids ute me hemorrhage tubercula aden its angiomas and many types of subacute and ch once skin fesions

As a suppl mentary serve ne offer RADON (ad mem to n)

RADIUM CHEMICAL CO

PITTSBURGH PA

NEW YORK BOSTON CHICAGO

Petrolagar_



Some Questions Answered

M ANY surgeons have asked us the follow ing questions about PETROLAGAR For the purpose of general information we wish to broadcast these answers

I Hou much mineral oil does PETROLAGAR con tatn?

Answer Sixty five per cent pure mineral oil of high viscosity

Does PETROLAGAR conlain any gums or resins? Answer I ETROLAGAR contains no Iri h moss no acacia no starch-the only bulk giving consti tuent being agar agar

3 Is PETROL IGAR on ethical preparation?

Answer Feet po able effort is made to keep I ETROLAGAR strictly a prescription product It is not advertised to the public We do not allow druggist to make window displays of it

It has been passed for new and Non Official Reme dies by the Council on Pharmacy and Chemistry of the American Medical Association

The Deshell Laboratories do not manufacture any product which a advertised to the public many was

DESHELL LABORATORIES, Inc

4383 Ford d A-LOS ANGELES

189 Mo t du St BROOKLYN N Y

> 589 E III St CHICAGO

M II th New gadd so

Desh il Labo ato a Inc Dept S G G tlm n Kandly se dm without blgat on a copy f th t tier Hbt Im

Add es



Camp Maternity Support

ON abdominal support grading from firmness at pelvis stricting across the center abdominal region. The patent Camp adju timent original and exclusive to our garments provides a regulation as to size and digree of pressure as desired for comfort and growth

In addition to the abdominal support this wonderful system of adjustment gives a firm support through the back especially through the serce-fullar region. In the cass manupulation of the adjustment the support of the entire trivial of the body as a gulated affording a perfect uplift from under battock to publis.

All sagging and over strained muscles are relieved gently but firmly all of which seacts to mental and physical buox ancy. Belts to be worn from period of fourth month to time of configency.

S H CAMP & COMPANY, Manufacturers
JACKSON MICHIGAN

RADIUMTHERAPY

In the minds of many phys cams the use of Rad um is associated only with the treatment of mal grant disease but its use in non malignant could t one actually forms a broader field of usefulness

Good results are being reported with radium in such conditions as inoperable to e.go ter e ran it pres of ute me fibre ds uter ne hemorrhag tubercula ad its 2 g omas and many types of sub cute and checous skin les ons

As a supplementary service rue offer RADON (rad m emanation)

RADIUM CHEMICAL CO

PITTSBURGH PA

NEW YORK BOSTON CHICAGO

Petrolagar_



Some Questions Answered

MANY surgeons have asked us the follow ing questions about PETROLAGAR For the purpose of general information we wish to broadcast these answers.

I How much mineral oil does PETROL 4G 1R contain?

Answer Sixty five per cent pure mineral oil of high

Answer Sixty five per cent pure mineral oil of high vi cosity

Does PETROL IG IR contain any gums or resins? Answer PETROLAGAR contains no Irish mos no acaca no starch—the only bulk giving constituent being agar agar

3 Is PETROL IGAR an ethical preparation?

Answer Every possible effort is made to keep IETROLAGAR strictly a prescription product

It is not advertised to the public. We do not allow druggi ts to make window displays of it.

It has been passed for new and Non Official Reme

It has been passed for new and Non Official Reme dies by the Council on Pharmacy and Chemistry of the American Medical A sociation

The Deshell Laboratories do not manufacture any product which is adverte ed to the public in any way

PETROLAGAR is issued as follows PETROL AGAR (plain) PETROLAGAR (with Phenol phth lem) PETROLAGAR (Alkalme) PETROL-AGAR (Unsweetlened no sugar)

M II th Nea eat Add eas

DESHELL LABORATORIES, Inc

4383 Fru tla d A LOS ANGELES

Deshell Laboratories Inc Dept S G
Gentl m n ha dly send me w thout obligation a copy that the take H t T me

189 M nt gue St BROOKLYN N Y

Dr

589 E III Se CHICAGO

Vdd es



Camp Maternity Support

DOW abdominal support grading from firmness at pelvis to a flexible line at top of guidle lifting but not constricting, across the center abdominal region. The patient Camp adjustment original and exclusive to our garments provides a regulation as to size and degree of pressure as desired for comfort and growth

In addition to the abdominal support this wonderful system of adjustment gives a firms proor through the back expecially through the sacro fulse region I not hee asy nampulation of the adjustment the support of the entire trunk of the body is regulated affording a perfect uplift from under buttock to pubs

All sagging and over strained muscles are relieved gently but firmly all of which reacts to mental and physical buor ancy. Belts to be worn from period of fourth month to time of confinement.

S H CAMP & COMPANY Manufacturers
JACKSON MICHIGAN

RADIUMTHERAPY

In the minds of many physicians the use of Rad um is associated only with the treatment of malignant disease but its use in non mal gnant conditions actually forms a broader field of usefulness

Good results are being reported with rad um in such conditions as inoperable t is go iter certain types of uterine fibro dis utenne hemorrhage tubercular adentits angiomas and many types of subacute and chronic skin lessons

As a supplement ry service we offer RADON (ad in emanation)

RADIUM CHEMICAL CO

PITTSBURGH PA

NEW YORK BOSTON CHICAGO

Petrolagar_



Some Questions Answered

MANY surgeons have asked us the following questions about PETROLAGAR For the purpose of general information we wish to broadcast these answers

1 How much mineral oil does PFTROL 1G1R con tain?

Answer Sixty five per cent pure mineral oil of high vi cosity

Does PETROLAG IR contain any gums or resins? Answer IETROLAGAR contains no In h moss no cacain no starch—the only bulk giving constituent being agar agar

3 Is PFTROLAGAR an ethical preparation?

Answer Every po able effort is made to keep ITTROLAGAR strictly a prescription product

It is not adverted to the public. We do not allow druggists to make window di plays of it.

It has been passed for new and Non Official Reme

it has been passed for new and Non Ulificial Reme dies by the Council on Pharmacy and Chemistry of the American Medical Association

The Deshell Laboratories do not manufacture any product which is advertised to the public in any way

DESHELL LABORATORIES, Inc

4383 Fru tl nd Av LO5 ANGELES

189 M e gue Se BROOKLYN N Y

> 589 E III . St CHICAGO

Mill th Nes eat Add ess Deshell Labo atories Inc Dept S G

Gentle m n kindly send me th ut oblig to a a copy of the t atise H b t Tim

_

Addres



Camp Maternity Support

TOW abdominal support grading from firmness at pelvis
to a flexible line at top of gridle lifting but not con
stricting across the center abdominal region. The patient
Camp adjustment original and exclusive to our garments
proo ides a regulation as to size and degree of pressure as
desired for comfort and growth.

In addition to the abdominal support this wooderful system of adjustment gives a firm support through the back especially through the surror thing region. In the casy manipulation of the adjustment the support of the entire trush of the body as a gulated affording a perfect uplift from under buttook to public

All sagging and over strained muscles are relieved gently but firmly all of which reacts to mental and physical buow ancy. Belts to be worn from period of fourth month to time of confirment.

S H CAMP & COMPANY Manufacturers
JACKSON MICHIGAN

RADIUMTHERAPY

In the minds of many physicians the us of Radium is associated only with the treatment of mal grant disease but its use in non mal gnant conditions actually forms a broad r fi ld of usefulness

Good results are bes g reported with ead um in such conditions as inoperable tox c go ter certain types of siterin fibro dis uterine hemorrhag tube cular ad nits angiomas and many types of subacute and chronic skin lesions.

As a supplementary service we ffer RADON (ad m emanation)

RADIUM CHEMICAL CO

PITTSBURGH PA

NEW YORK BOSTON CHICAGO



"The Dependable Original"

Made in the Un t d States in strict conformity with Ehrl hap notes es and formulas Government tested.

Our nbl g tion of responsible b lpfuln s towards practition or and patient is being fulfilled th ough the m d um of lowe ed p nf Neo alvarian posbl by quantity production

	1	0 15 gram	\$ 60 pe	#mpul
	п	03 ~	65	
	III.	0.45	70	
	IV	06	60	
	v	0.75	90	
	VI	09	100	
- 1				

Neosalvarsan the depend ble origin 1 is unsurp ssed in low toxic ty and is un qu il d in th rapeuti effect ven These facts h v b en d monstrated through exten ve use during the past thirteen years and constitute a unique record

Tript et a-d it diwer i m fer prope sol (i tre oue m decau na. B of 5 mpules 10 h 20 cc

1.25

M-A-METZ LABORATORIES INC

RADIUM RENTAL SERVICE

Radium loaned to physicians at moderate rental fees or patients may be referred to us for treatment if preferred

Careful consideration will be given inquiries concerning cases in which the use of Radium is indicated

BOARD OF DIRECTORS

William L. B um M D N Spoat II an y M O F d i k M nge M D
Loui E. Schmidt M O Thom J W tkin M D

The Physicians Radium Association

1114 Tower Building 6 N Michigan Ave

T 1 phon Cent 12268-2269 CHICAGO, ILL William L. B own M nag :

Metaphen, DRL

A Powerful Stainless
Mercurial Germicide 500 Times
the Strength of Phenol

METAPHEN IS STAINLESS

For Skin Lesions

Metaphen is effective in the treat ment of pyogenic skin conditions and skin affections caused by vege table parasites

For Gonorrhea

Metaphen is of great value in most cases of acute gonorrhea. The urethral discharge is stopped in most cases after a few treatments

For Sterilizing Instruments

Metaphen does not tarnish instruments even when the latter are immersed in a 1 1000 solution of the compound for one week or more. Immersion for a few min

For First Aid

Metaphen is superior to Iodine in treating cuts and open infections and is without stain or damaging effect on the tissues

Ak fo book! the cribing the miny use of Mtphin

THE DERMATOLOGICAL RESEARCH LABORATORIES

1720-1728 Lomb rd Stre t Phil d lphi

Bachf

THE ABBOTT LABORATORIES

New Y k S ttl San F c Los A 2 1

Doctor-

we'll thank you

to tell mothers this good news

QUAKER OATS experts have pe fect d a new ki d of Qu ke Oats th t cooks in 3 to 5 mm tes

It is called Qu ck Q aker and enable by waves and mothers to prep re no shang foot beakf sis as eas ly and qu ckly as I as des rable foods

May homes as you know are omitt g the esse t 1 oats simply beca se of th cooking time

Quek Quake was perfected to m t

The rich I II flavor of Q aker Oat is filly ret ined the same selected graused. Qu ckQ aker cut before flaking rolled thinn r a d part ally cooked. It cooks faster—that is tho only differen. Will you tell mothers of it please?

Well thank you if y u do
Two ki ds no at goce s Qick
O ker and Ousker O ts

S nd rdfollst dwth reks Medium. 1% po d Lagr I pounds 7 4

Cooks to 3 to 5 mil sea





hekind you have alway known

The New York Post-Craduate Medical School and Hospital

MEDICINE AND PEDIATRICS

Courses begin the 1st of every month

Fa nformat n write t

THE DEAN 303 East Twentieth Street New York City

NEW YORK UNIVERSITY

UNIVERSITY AND BELLEVUE HOSPITAL MEDICAL COLLEGE
TWENTS SIXTH STREET AND FIRST AVENUE NEW YORK

LOST GRADUATE DIVISION

SAMUEL A BROWN MD D+

JOHN WYCKOFF M.D. Secret or

Special Summer Course in

REGIONAL ANAESTHESIA

as applied to

SURGERY and SURGICAL SPECIALTIES

Given by GASTON LABAT MD
Jun 1 t to July 10th 19 5
Refer Close on Ma 15 29 5

For princial is, prilyt Joh Wyck ff MD Secret by
U rs ty and Bellevi. H. p. 1 Medical Colleg. Twenty. h S reet. nd Frs. A. en. e, N. w.Y. k.



When

Nothing Tistes Good

Remember that lighter daintier food urns back appetite and suggest Pussed Wheat and Pussed Rice

TELL the pat ent who complast of a flagging app the to tey this moraing and noon time menu for a week

Breakfast - Qu ker P fled Wheat se ved with sugar and cream or with Iresh or stewed fruit.

fresh or stewed fruit.

Luncheon-Quaker Puffed R ce
floated in a bowl of half and half

Such a br akfast is as wholesome nut tious a d sate fy g as t is t mpt ing and del c ous Qu ker Puffed Whe t is whole wheat in a light ent cing and most casily d gested form

1 - 0 40

thi king and abund nt physical energy in the aftern on

(P member the syourself doctor when you are so bosy that a has ty be is all you have time to at noon)

O aker Puffed What and Poff d Rice



a per unintions grans ateam exploded eight times normal size Each! od c II i br ken to insti e q i k and ca y d gestion and ass m il ti n.

THE QUAKER OATS COMPANY

Clinical Opportunities

Physicians and Surgeons are in vited to take advantage of the clinical facilities for which special arrangements have been made in several cities. Those interested will receive every attention upon application at the following chinical centers.

CHICAGO Clinical Bulletin 40 E. Frie St

NEW YORK Society for the Advancement of Clinical Study 17 W 43rd St

PHILADELPHIA Academy of Surgery 15 S 22nd St

ST LOUIS MO St Louis Medical Society 1525 Pine St

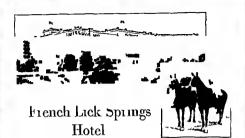
ROCHESTER MINN International Surgeons Club Mayo Clinic

LONDON ENGLAND Fellowship of Medicine and Post-Graduate Medical Association I Wimpole St. W. I

KANSAS CITY Kansas City Clinical Society 400 Rialto Bldz

CLEVELAND Academy of Medicine 2318 Prospect Ave

BROOKLYN
Brooklyn Joint Committee
on Graduate Education
1313 Bedford Ave



FOR the surgeon who heeds periodically the call to rest there could be no better place to retire for a weck or ten days than the French Lack Springs Hotel

It is sufficiently removed to inspire relaxation and it is centrally located to make possible a sojourn there without spending more than a few hours en route from major points in the Middle West

A new addition has been completed most modern in its appointments to accommodate the growing clientiel. This addition includes a large convention hall scating 1.00 which makes the institution ided as a meeting place for state or national societies. Nevertheless French I ick has not lost and will never lose that quest dignity which bespeaks the hospitality of a club or home. This is the serson when the two golf is not desired the guest may find pleasure in horschack riding and he has at his command one of the largest stables from which he may mike his selection. There are many truths which will appeal to veteran horsebuck riders or to those who have hid neither time nor opportunity for this wonderful recreation.

The therapeutic value of the Springs which have made French Lick famous the world over need not be emphasized here. We welcome you and your patients as guests

F f th frmation add 1 the Sec tary

FRENCH LICK SPRINGS HOTEL COMPANY
FRENCH LICK INDIANA





Adding to Your Library a Comprehensive Surgery

Surgery Gynecology and Obstet rics is especially designed for binding

Each volume consists of six numbers two volumes to the year January to June and July to December

Out standard volumes are substantially bound in an extra good grade of blue

art canvas stamped in gold Back numbers in bound volumes except vols I and II can be supplied at the following prices

Y lum Surgery Gynecology and Obstetrics (without the Abstract) \$5.00 International Abstract of Surgery 4 25 Surgery Gynecology and Obstetrics with International Abstract of Surgery (Complete Edition) 8 50

BINDING BACK NUMBERS

Where fournals are return d to us by subscribers i exchange f r the b und v jum s the ch ge for binding in ur standard blue art canvas will be a follows

v 1 -Surg ry Gyn logy and Obst teles \$2.00 Intern tion I Abat a t of Surg ry 2.00 Comp) to Ed ti n-Su g ry Gynecology and Obstet ice with int coat on 1 Abetr et of Su cerv 3 5

Express or freight charge on 1 urnals returned f r binding should be prepaid

BINDING CASES

If the services of a bookbinder rea subside in your win city you will an emery by ord rung hinding cases having the biding done by back bunder instead of returning the back numbers. Binding cases of our standards by a six carness stamped up at daupple of the follows: grates

\$1 10 Surgery Gyn cology and Obat t Ica Intern ti nal Ab t act of Surge y 1 10 Complet Ed tion-Su g ry Gyn col gy and Ob tetrics with Inte nat nal Ab-1 50 te ct of Su ge y

> We an supply bind ge s sorb a back a mbers in y sixi ! d ther lather Prices quot & egs 1

Prices quoted above do not include carriage charges

SQUIBB'S ETHER IS THE SAFEST,
MOST USEFUL and ECONOMICAL
OF ALL THE ANDSTRETICS

Ether Squibb

made especially for anesthesia is the first ether ever offered to the medical profession for surplical use

It is made and always has been only in the Squibb Laboratories in stills and by a process invented by Dr E R Squibb and which are not used by any other manufacturer

The uniform purity and strength of the Squibb Ether insures an efficacy upon which the surgeon and the anesthetist can rely implicitly

The small quantity necessary for an anesthesia renders the Squibb Ether not only the safest but also the most economical

Chloroform Squibb

is marketed only under the Squibb Seal and Guarantee

To prevent spontaneous evaporation and decomposition as well as to provide easy and economical administration is supplied only in amber-colored bottles with a screw cap from which without removal of the cap the chloroform may be dropped

¥

ERSQUIBB & SONS, NEW YORK HANDEACTURING CHEMISTS TO THE MEDICAL PROFES ION SINCE 1858



Hyclorite Has Solvent Action

Drs Austin and Taylor of the Rockefeller Institute New York writing in the Journal of Experimental Meditorie on "The Solvent Action of Antiseptics on Necrotic Tissue state that the solvent action of Dakin's Solution is due primarily to its hypochlorite content and that Dichloramine T and Chloramine T do not exhibit solvent action.

The same authorities have shown conclusively that a Dakin Solution mide by dissolving chloramine tablets or powder is not alkaline and has no solvent action on ne crosed tissuit.

HYCLORIT1 being of standardized hypochlorite strength and and special alkahnity ensures rapid solvent action. A Dakin s Solution can be made in one minute by merely adding the required amount of mater to HYCLORITE.

No witing filtering titrating or adding other chemicals and the resulting solution is decidedly less irritating. HI CLORITE has seven or eight times the strength of Dikin's Solution made in the usual way.

HYCLORITY S concentration and preparation by special electro-chemic process assure its remarkable keeping qualities

HYCLORITE IS ISOTONIC

Accepted by Council on Pharmacy and Chemistry of the AMA(NR)

Il rite for sample and literatu e to

BITHLEHEM LABORATORIES Inc

OCT YTERY BIDG

PITISBURGH P1





Pituitary Liquid "Armour"

and be sure of your product

Free from preservatives 'physiologically standardized of uniform activity A reitable ovytocic has given splendid results in post partiim hemorrhage and after abdominal operations, to restore peristals!

1/2 c. ampoules obstetrical 1 c. c. ampoules surgical Baxes of Six

Write for our booklet on the Endocrines

ARMOUR COMPANY



Without the STAIN

PERFECTE

PROCESSE

MCRCUROCHROME-220 SOLUBLE

(Dibrom oxymercuri fluorescein)

Would be

"Just Another Germicide"

It is the STAIN that makes Mercurochrome distinctive and gives it special characteristics of definite clinical value

The Slam shows where and how much is applied.

The Slam provides demonstrable penetration into body tissues.

Let be or an extended eriod.

Mercurochrome and Iodine both stain but Mercurochrome does not burn irritate or injure tissue Mercurochrome has proved an extremely effective

GENERAL ANTISEPTIC AND FIRST AID PROPHYLACTIC

So Why Not Replace Iodine with Mercurochrome?

Inte esting I terature on request

HYNSON, WESTCOTT & DUNNING





JAN 3 1030

Surgery, Gynecology and Obstetrics

WITH

International Abstract of Surgery

Official Journal of the American College of Surgeons

EDITORIAL STAFF

FOR AMERICAN COLLEGE OF SURGEONS

WILLIAM J MAYO M D Rochester
ALBERT J OCHSNER M D CA 480 JOHN M T
LHARVEY CUSHING M D Boston GEORGE W
E. WYLLIF ANDREWS M D Chicago THOMAS J

JOHN M T FINNEY M.D Baltimore GEORGE W CRILE M D Cleveland THOMAS J WATKINS M D Chicago RIDOLPH MATAS M D New Oleana

FREDERIC A BESLEY M'D Chicago
WILLIAM R. CUBBINS M'D Chicago
GEORGE E DE SCHWEINITZ M'D Fhuadolphia

REORGE B DE SCHWEINITZ M.D. Ludsgeibur

for the British Empire

SIR ARTHUR MAYOROBSON K.B.E. C.B., CV O, D.Sc. London SIR BERKELEY MOYNIHAN K.C.M.G. CB. Leeds SIR HAROLD J. STILES N.B.E. FR.C.S. Ed nburgh J. RUTHERFORD MORISON M.B. FR.C.S. Newcanteon Type THOMAS W. EDEN. M.D., FR.C.S. London SIR WILLIAM J. D.C. WHEELER M.D. FR.C.S.J. Dubbin

FRANKLIN H. MARTIN M.D. MANAGING EDITOR
ALLEN B. KANAVEL, M.D., ASSOCIATE EDITOR

EDITORIAL AND RUSINESS OFFICES SA EMERIA S., Chicago, III ols U S A.
PUBLISHERS FOR GREAT BRITAIN BAILLAN TRANSPARENT SALCOWER GARden London W C., Farbad

Copyright, 1925 by The Surgical Publishing Company of Chicago-Entered to second-class matter May 22, 1911, 4the noneaffice of Chicago. He made the Act of Comment of the Act of Comments and Comments a

EVERY SURGEON NEEDS IT



BRADY'S POTTER BUCKY DIAPHRAGM

your A say man. I cast I KYING one to suce hims II and yourself of the truth of this.

(I were expectably fine dets to be heavy part as the asyme, kind y gall bladder prins etc. mossible to secure in any other way. THE GREATEST AID TO FINE RADIOGRAPHY EVER FRODUCED. The smallest patient and most accur I Bucky made.

New mod I with many improvements, price \$250.00 less 10 per cent cash discount for prompt payment. Try it and be convinced.

EVERYTHING IN X RAY SUPPLIES

W. cerry last stacked all X Ray gold 6.1 etelling Dayl dated Thins, FI 16.5 I tensity in Stevens, Developer
Devict Fill the first of the Control of Tables, and to the Property and Developer
Everything the property of the Control of Tables, and to the Property in the Developer Tables, and the Property of the Control of the Property of

GEO W BRADY & CO, 756 So Western Ave Chicago Ill.

ETHYLENE ANESTHESIA has come to stay The best results are obtained in using it in combination with Nitrous-Oxide and Oxygen which can be done only and done safely—with the GWATHMEY APPARATUS

Ethylene Models No 99 and No 2

THE FOREGGER COMPANY INC 47 West 42nd St. - New York NY

Hospital sterilizing safety for the specialist

The risk in using partly steril zed goods in surgical and specialists work is just as great in clinics and small surger es as in large institutions

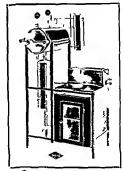
It more than pays to have a wide margin of safety on your side no matter where you work

уc ha

still (cold wat r) and a large matru ment sterilizer It is ideal for the specialists work and private surgeries

No 019-Th price m der te Send! blitn K

Simil or for Ph ness ILMOT CASTLE CO 1157 UM R beate N h



Ca il st liz ton is based en a thor ty

76 I

77I

776

778

818

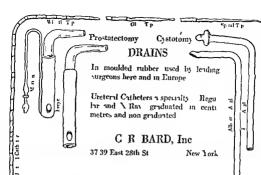
822

825

CONTENTS-JUNE 1925-CONTINUED

ORIGINAL ARTICLES-CONTINUED

- 4 OPERATIVE TREATMENT OF ULCERS OF THE BODY OF STOMACH 1 J Walto: MS TRCS Lndo Enelaid
- 5 THE RELATION OF THE SPLEEN TO CERTAIN CHRONIC I CRPCRAS II dilion J Mayo W D F 1 CS Kochester Minnesota
- 6 THE PROBLEM OF COMPLETE SPLEEN RECENERATION Dr L Schoenbauer and De II Sier be e Vienia Lustra
- 7 CYSTS OF THE SPLEEN Sir Berk ley Monnihan A C M C CB Leeds England
- JOINT TRANSPLANTATIONS AND ARTHROPLASTY P f Ericl Lexer Freibing Germ y 782
- RESECTION OF KIDNEY FOR CALCULOUS PRONEPHROSIS H M Richter M D F A C.S. a d L M Zimmerman M D Chicago 810 10 URETEROCELE 175 CLINICAL SIGNIFICANCE AND I ROCESS OF FORMATION REPORT OF FOUR
- CASES Diomede let ll MD New Yak 811 HYPERTHYROUDI M AND PEPTIC ULCER-AN ANALOGY C II Crile M D F 1 C.S Clete
- la d Oli 12 CALCIUM Clales II Ma MD FACS R chester M nn sota
- 14 MASSI E TUMORS DUE TO DIVERTICULTIES OF THE LARGE BOWEL. 1 P im ose CB MB CM FICS Torni C nada



Ask Your Dealer-Specifying Eynard Make



Shadowless Heatless

Glareless

OPERATING LIGHTS have now been adopted by the leading Hospitals of 27 Nations (practically the entire civilized world)

Full of m t ngl dly

B B T CORPORATION OF AMERICA

There are many

SURGERY

AND

GYNECOLOGY

for which Diathermy is considered a specific

Recently numerous reports have appeared in the better medical journals giving details of these results and case histories covering many conditions—

PNEUMONIA—ARTHRITIS—PROSTATITIS FRACTURES—TRAUMATIC INJURIES ENDOCERVICITIS AND THE REMOVAL OF BENIGN AND MALIGNANT POPEIGN GROWINS

Sendfr put from 1th blooted th their poord everige may 1th bod n whhoe will glody doy

THE LIEBEL FLARSHEIM CO Service Dept

CINCINNATI O

828

841

853

859

CONTENTS-JUNE 1925-CONTINUED

ORIGINAL APPLICATION CONTRACTOR

- 14 Periarterial Sympathications Indications for Its Use in Circulatory Diseases of the Extremities Berlow M Bernheim M D F 1 CS Ball more Maryland
- 15 SUBASTRAGALOID ARTHRODESIS A STUDY OF END RESULTS 11an deFo est Smith 1 B

 M D a d Herman L von Lackum BS M D \ver 1 k
- 16 PANCREATIC LITHIASIS Stanley J Seeger MD F 4 C S Wilwankee Il isconsin
- 17 THE GEAL ADMINISTRATION OF SOMEWH TETRALOGOPHENOLPHITHALEIN FOR CHOLECASTOG RAPHY Lester R With the TVD Bost in Musicachietitis Gibbs Williken WD Garest Tense of Edward C 1 gt WD B stom Vassed with

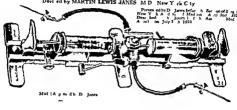
DEPARTMENT OF TECHNIQUE

- 18 INTERDIGITATION IN THE REPAIR OF LARGE VENTRAL HERMAN WITH OBSERVATIONS ON LIPE TOUR II II DAYN Bob och M D F 1 C.S. Ph loddyhi

 10 VOUR LARGERION (NORCHAI REPRESANCE TO DELIVE LARGERION)
- CUTE INSECTIONS (SPECIAL REFERENCE TO PELVIC INSECTIONS) I'm mas J | II atkins
 If D | F | 1 C S | Cl. ag
- 20 I HALANGIZATION OF THE FIRST VIETACARPAL D Grille mo Bos I 1 and Bu nos 11 es

CO TE 75 VIII CED O POSITE EY P GE

The Janes Apparatus for Blood Transfusion



e jo lastrum at Sci atifically Con tructed d

L J LOOMIS & COMPANY Inc

17 W 1 60th St 1 N w York Ctv

Hospital Safety

This new low priced pressure sterilizer in sures complete sterilization. Dressings are sterilized under fifteen pounds pressure and then direct.



You Can t Afford Half Stersusation

Complete sterilization is assured in this sterilizer which is very simple to operate
This new sterilizer is safe to use. Note the safety valve and the automatic cut
off. It is constructed of copper and bronze throughout. Only the best mate
rules are used in the construction of this sterilizer.

PROMETHEUS ELECTRIC CORP

358 W 13th St New Y k City

Send me complete details of the low Addr

details of the low price Pressure Sterilizer

Name f D aler



THE PETTON'S CRANT OF DETROIT MICH

CONTENTS-JUNE 1925-CONTINUED

DEPARTMENT OF TECHNIQUE-CONTINUED

862

ጻለጻ

874

876

878

88.t

- NEWER METHODS OF TREATMENT IN NON-UNION OF FRACTURES R Tunstall Taylo B 1 MD F 1 CS Baltin re Maryland
- 22 AMALIORATION OF LABOR PAINS IN MORPHING MAGNESIUM SCIPILATE INFECTIONS AND
 COLONIC ETHER INSTITUATIONS DIRECTIONS FOR ADMINITERATION BY METHOD
 EVOLUTION AT THE LIVES IN HOSPITAL OF THE CITY OF NEW YORK 144 B Dath M D
 F 1 CC 5 N 2 h 6 k
- 23 SUPRACERICAL (BIGH SUBTOTAL) HYSTERECTOMY WITH CONSERVATIO OF THE MEN-STRUAL FLYCTIN. Emily tak M.D. F. I.C.S. Baltim, e. Manyla id.

FDITORIALS

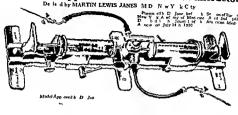
- THE LITTUITARY BODY Cha les Fra ic MD F & CS Pliladelphia
- IRRADIATION TREATMENT OF MAGPATHIC HEMCREHAGE Join (Clark M.D. F. I.C.S. Pl. lad lpl. g.

MASTER SURGEONS OF AMERICA

JOHN WARREN Halte L Bu oge MD Boston

CO TE IS CONTI LED OFFOSITE NEXT PAGE

The Janes Apparatus for Blood Transfusion



L J LOOMIS & COMPANY Inc

17 W t 60th St t N w Y k C ty

Hospital Safety at Low Cost

This new low priced pressure sterilizer in sures complete sterilization. Dressings are sterilized under fifteen pounds pressure and then dred

You Can t Afford Half Sterilisation

Complete sterilization is assured in this sterilizer which is very simple to operate. This new sterilizer is safe to use. Note the safety valve and the automatic cut off. It is constructed of copper and bronze throughout. Only the best mate tials are used in the construction of this sterilizer.

PROMETHEUS ELECTRIC CORP

358 W 13th St New Y & City

Send me complete details of the low price Pressure Sterilizer Name Address

Name of D ler



Wrt fri frmatie

Illustrating Our Service in "Seed" I

of Radium Emanation—Suprapubic Cystotomy

RADIUM EMANATION pre pared for your use in any form or concentration

Instruction in the physics of Radium Emanation—its ther apeutic uses and application

Applicators are furnished with Radium Emanation without additional charge insuring properly conditioned instruments for every operation

THE RADIUM EMANATION CORPORATION
250 West 57th Street New York City

CONTENTS-IUNE 1925-CONTINUED

THE SURGEON'S LIBRARY

OLD MASTERPIECES IN SURGERY—LITHOTOMY AND THE LITHOTOMISTS 11fred J Br un M D F 1 C S Omaha Neb aska

REVIEWS OF NEW BOOKS IN SURCERY

Med A II 1 LOM M C verif M D 25 Fr. FALS 4 B 1 2 F. FALS 4 B 1

AMERICAN COLLEGE OF SURGEONS

PLANS FOR THE PHILADELPHIA MEETING 891
I RELIMINARY CLINICAL PROGRAM 893
I HILADELPHIA HOTELS AND THEIR RATES 899

STATE AND PROVINCIAL CLINICAL MEETINGS 900
WASHINGTON MEETING OF THE CLINICAL CONGRESS OF AMERICAN PRASSICIANS 900

INDEX TO VOLUME AL

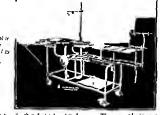
1 CONTRIBLTORS

II SUBJECT INDEX

III BOOK REVIEWS

886

Ask Your Dealer for Circular and Prices of The Albee Fracture Orthopedic Operating Table



p fie d mp TASCARELLA BROTHERS 65-75 G Manul to er f Compl t Lo fll ot 1 d Phy come R g me t f Tw lytw Y



THE TREND IN CLINICAL MEDICINE
IS TOWARD THE MORE EXTENSIVE EMPLOYMENT OF

Tetanus Antitoxin

FOR CURATIVE PURPOSES

ď,

ANTITETANIC SERUM was at one time generally re garded as an efficient prophylactic rather than as curative agent. But there is an unmistable trend not days toward the use of antitetanic serum as a specific cura tive arrent as well.

A prominent surgeon writes us A great deal of the pessimism in the use of serum for curative purposes is per haps because it is not given by the best route and in large enough doses. My statistics as far as I have gone at present show that in cases that have received a dose of 30 000 units by vent the mortality is only 3 per cent. It will probably be much better than this if one should cut down to the cases that have received this dose in the first three days of the teamus symptoms.

Certain it is that early diagnosis and large therapeutic doses have materially lowered the mortality

TETANUS WITITOXIN P D & CO commends itself to the diminating physican because of its high finement small bulk and giffy gilblity.

Ou T trus Tox n of such tength and un form ty that healthy young hose und trum not with it constends pod cent vent true se um of 1 t ely high potenty

This is missed of concern at on has ebeen developed to such a fit this globul in ulting firm then it server up esent. Then that to in fith high tiguality this meally and bologically. Fin this or you package fitt d with an imposed plunger is pigded dly set fit.

R qu sts fo I se tur a lw y wel om d

PARKE, DAVIS & COMPANY

DETROIT - MICHIGAN

TETANUS ANTITONIN P. D. G. CO. IS INCLUDED IN THE N. N. R. BY THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION

B-D PRODUCTS

Made for the Profession

Luer Syringes—

Yale Quality Needles

Spring holds plunger at any point

Annealed glass reduces breakage

Accurate Graduations

No back flow

Yale Needles always Fit and

Have smooth sharp points

Styles tor every Purpose

Genuine II hen Marked

B D

Sues and



Buy Them by the Do en

Supplied through Dealers

BECTON, DICKINSON & CO

Makers of Genune Lutr Syringes Lale Quality Needles B D Thermometers Ace Bandanes Asepto Syringes Sphygmomanometers and Spinal Manometers

PLANT WHERE THE

OHIO OPERATING TABLE No. 2

IS MANUFACTURED



Pla t sapp ximally o ity bl k nd ntoin th fi tequ pment that to b tat ed nyuh e

To hth ppe fidn mal tedpodcty uhldhve the ppe o pronof the depenst of the plat whet pdt md

tnt
Ith fat yyou will fid n mo pow
pose i stmpg tm ny pat io
ntli

Yo will iso fid tyl dects wild gds of this treatt Also mig dem to odgwht vegyo FOSCO mottldgyf hAlsowoodg gwhh podd tu

Adlg f bkg them
which the try pod
Yowll loofind to vide than
which equation vide flyw poed ted so thick bill by the

(V 1 Booth No 36 1 Cathol Con ation Ok uh e Wi)

F O SCHOEDINGER

Columbus Ohio

USA

Hotlawhha petapefto

dtn
On t p th ughour e te v f t ywold
on t p th ughour e te v f t ywold

d mot p nhd n nth FOSCO In of Asept Mitl Hopt I d Sgl Fntu that n of dvt g

The few who out you mo columbu is you will seem It my pocess whh is pm not t



OHIO Mobil Ted tal Operating T bl No 2

R ten M mel M al T p C P rc far B se 51 a m m m h mel M al T p C P rc far B se 51 a m m m h mel 41 ma m m her h 19 wad 50 ms fe h

The Improved Albee Electro-Operative Bone Surgery Set

with Hartley Kenyon Sterilizable Shells

Langworthy Perpendicular 5aw

An outstanding development in the field of bone and joint surgery based on knowledge

It reduces by 90% the time hitherto required to complete an operation with hand tools. It minimizes shock to the patient and saves valuable time for the surgeon. It performs its work with absolutely perfect accuracy.



Th Albee Set ___ a i i fin

9

nt trum L— well by 2 hp tpdetc-bld plby 2 mat thwh hllw th Lhge A w dwthgldld C

D M tch il Langw rthy P rpe d cul r S w an n whe pphrd f use with th Albee Set

The Kny Scheerer Corporation has the sole rights to manufacture the Albee Electro-Operative Bone Surgery Set All the parts are made with tools specifically approved by Dr Albee

Descriptive Bulletin and Instruct on Book let will be sent on reque t

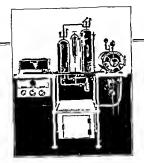
This is a styd d Othyd of R and i Stry by FH 4th (H BS d C)

THE KNY SCHEERER CORP

119 Se th A u Dept 104



N w Y k N Y



Endorsed for your office by the foremost hospitals

What's more reasonable than for the surgeon—when choosing a sterilizer for his own office—to be guided by the experience of the foremost hospitals?

The well managed hospital looks to sterilizing equipment for efficient service or a period of years. And hospital officials have found that the best built sterilizers are the ones which show the lowest cost per year.

The general preference of hospital officials for American Steril izers is explained by letters like this one from a well known institution. Our first \text{ Merican Sterilizer purchased 20 years ago is still ship shape, and serving every purpose

Because AMERICAN Steribzers are used by the leading hospitals the smaller AMERICAN units are your safest choice for office use. Write for Bulletin S 21D

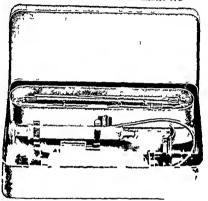
AMERICAN STERILIZER CO Eric Pa
Onemat of h se use pre use m hedofd was tille on, to-clamp m he
bed pan ender son,
Es em S J Offic 2000 F h Avenue New York Ci v



THE GENUINE ORIGINAL

LABAT OUTFIT

FOR LOCAL REGIONAL AND SPINAL ANESTHESIA
A U d ad R commend d by GASTON LABAT M D



LABAT OUTFIT FOR INDUCING REGIONAL ANESTHESIA

THE METHOD OF THE FUTURE

The young surgeon should perfect hunself in the use of regional anesthesia which increases in value with the increase in the skill with which it is administered —WHLIMM J MANO (L b t. Reg. od 1A thes W R S ed its Company [Fill d blb 19]

m ! O the tang f T S es d m l h l dl (N t) t 50mm edd (N 2) to0mm edd (N 3) t 50mm edd (N 3) t 50mm edd (N 5) pas i Pon ur dles (N 5) pas i Pon ur dles (N 5)
$$(N + 1) + (N + 1$$

Price of Complete L bat Outfit \$2500 NOTE DEMAND THE ORIGINAL AND CENTURE LABAT OUTFIT SYRINGE AND NEEDLES

TAKE NO SUBSTITUTES IF YOUR DEALER CANNOT SUPPLY YOU WRITE US

THE ANGLO-FRENCH DRUG COMPANY 1270 BROADWAY NEW YORK

Syll rum Dyetm t Lt tu



Endorsed for your office by the foremost hospitals

What's more reasonable than for the surgeon—when choosing a sterilizer for his own office—to be guided by the experience of the foremost hospitals?

The well managed hospital looks to sternlizing equipment for efficient service over a period of vears. And hospital officials have found that the best built sterilizers are the ones which show the lowest cost per year.

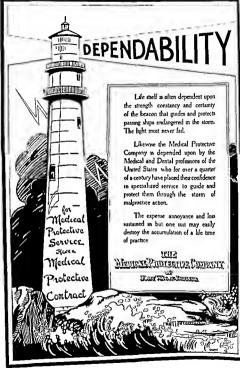
The general preference of hospital officials for AMERICAN Steril izers is explained by letters like this one from a well known institution. Our first AMERICAN Sterilizer purchased 20 years ago is still ship shape and serving every purpose.

Because AMERICAN Sterilizers are used by the leading hospitals the smaller AMERICAN units are your safest choice for office use. Write for Bulletin S 23D

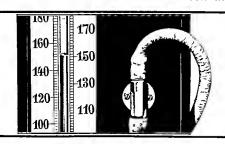
AMERICAN STERILIZER CO Eric Pa Origina orsofth acutum per us m had of dre used t has son, o-clamp m had bed pass eralis on t

Es ern Sel Off 200 F f h Avenue N w York C





What makes the Baumanometer accurate?



Is it because the weight of a mercury column balances the bloo lyre sure—that a Baum mometer has preculon?

Is it because every tule is eliberated in dividually—in order that each small variation in the glass be compensated?

Is it because each wile is circfully graduated by hand?

Is it because of the wide b retule the stabilizing cap and other vital features

—which the Brum mometer was first to give the I rolession? Undoubtedly!

But isn't it due mostly to the sineere purp so back of the instrument—

-prinstaking labor devoted to rend ering a valuable service to the 1 rofession —

-i pioneering spirit to which merenry glass and steel are but the tools for attuining a high ideal truly realized in the in trument?

I sur deale 1 ill glally show you a sy f the efice model — Desk Kit Bay I clet Ball and Cabinet



W A BAUM CO Inc

100 Fifth Avenue

NEW YORK

OXFORD Loose-Leaf SURGERY

I Morie Ilitaro AB MD

CONTRIBUTORS

Anderson H G Andrews H R Ashburst A P C Babcock W Wayne Balfour Donald C Barker Arthur L. *Barrett Channing \\ Blair V F Bland Sutton Sir I Bonney Victor Bri tow W Rowley Browning C H Burghard F F *Case fames T Cheatle G L Cotton Frederic J Crile George W Culhertson Carea Curtis Arthur H David V C *De Le Joseph B Edwards F Swinfor I Fagge C H

Findles Lalmer Freyer Sir P I Gillies II D Godler Sir Rickman Handley W S Harmer W Douglas Harns M L *Herb I C Hodgin Agatha Horrax Gilbert Iones Sir I obert Iudd E Starr Kanavel Allen B Koch Sumner L Lee Burton J Legg T P Lenis Dean Lewsohn Lichard Lynch Frank W MacLeod J M II Makin Sir C II

Mayou M S Moynthan Sir Berkeley Newman David O good Pobert Penhallow D P Fercy V M Peterson Reuben Pool Eugene H Rawling L Bathe Rob on A W Mayo Surgent Percy Simpson Frank E Stiles Sir Harold J Thompson J E Thomson Sir St Clair Thorburn W Tod Hunter F Trotter Wilfred Walker J W T Waring H I Watkins Thos I Waugh George E lates J L

The the $1 \le s y$ th Γg is $1 \le s t$ to $t \le t$ is $t \le t$ to $t \le t$ in t and t to t in t and t to t in t to t in
Marnell R D

ONFORD UNIVERSITY PRESS AMERICAN BRANCH
35 West 32nd Street No. York

DSH dmppdtiOfdLooLfS 61m f8400 fhll

Announcement

Now in Prepriation

A Neu

PRACTICE OF SURGERY

Fit liv DIANILWIS MD

1 111 1 60

I SHIITON HORSELY MD

RIAM a

E STARR FURD ALD GLORCLE

Roch 1

GIORCLI MUILER VID

TON JONES

The work is the result of the person definical experiences of the various contributors. Special emphasis is laid upon surfacial principles. The data are presented in a definite sequence. The Chinesi and Pathological findings (both gross and uncroscopic d) of each surgical condition are so correlated that the operative procedures become definitely indirected.

1 companion worl to Tice & Practice of Medicine

W F PRIOR COMPANY, Inc Publishers

HACERSTOWN

MARYLAND

OXFORD Loose-Leaf SURGERY

I duted by
Jules Mories Hetzrot AB MD

CONTRIBUTORS

Anderson # 6 Andrews H I A bhurst \ I C Babrock W Wayne Ballour Donald C Barker Arthur I Barrett Channing W. *Blaur 1 P Bland Sutton Sir J Bonney Victor Briston Il Loules Browning C H Burghard F F Case James 1 Cheatle G L Cotton I rederic I Crile George W Culbertson Carea Curtis Arthur II David V C De I ee Joseph II Edward F Swinford Fagge C H

Lindley Palmer Freyer Str 3 I Gdhes H D Godlee Sir Kickman Handles W S Harmer W Dougla Harri M 1 Herb I C. Hodgen Agatha Horrax Gilbert Iones Sir Robert ludd F Starr Kanavel Allen B *Koch Sumner I I ce Burton I Legg T P Ieni Denn Lens hn Kichard I vnch Frank W MacLeod J M II Makins Sir G II Maxnell R D

MINOU M S. Movmhan Sir Berkeliy Newman David Osgood Robert Penhallow D P Tercy N M Leterson Reuben Pool Fugene H Rawlin, L Bathe Robson A W Mayo Sargent Percy Sumpson Frank E Stiles Sir Harold J Thompson J L Thomson Sir St Clair Thorburn \ Tod Hunter F Trotter Wilfred Malker J W T Warmg H I "Watkins Thos J Waugh George E lates J L

The the h Say the I half great to delete no kept perode the profession and Et philds they dended to for a the home of the philds they dended to the first the first hand to the profession and the second to the first hand to the profession and the second to the first hand to the profession and the second to the profession and the profes

ONFORD UNIVERSITY TRESS AND RICAN BRANCH 35 We t 32nd Street Ne York

Sg tu

Stt

An Important Book in Preparation

A Textbook of Orthopedie Singery for Students of Medicine

By JAMIS WARRIA SIVIR M.D.

A | 10th pel S geo Citt | II pel B t

t | n 0 tl pel u | H | n 1 tel | l sel sol

Orthopodic textlook in the past says the author have generally left the

ical student orthopedic surgery in simple terms, that this book is brought out

A Monograph by the Famous English Surgeon A H 1UBBY MS 1 RCS The Advance of Orthopedic Surgery

Perce \$2.75

The work is the author of the famous. Tubly's Deformitie is decidedly worth while

Minor Surgery and Bandaging (State 1) By (WYNY WHILLYS MS 1 RCS Cloth 123 Page 8100

By con tant resi ion, the handbook for house surgeons has been kept thoroughly up to-date while to mg none of it, charm

NOTE I JI f likt I book p M k II IF M—The Clinical Examination of Su g leaf (a. (2-30) JAT xtbook of Surgi al H ad craft (5-00) J Lot v g

NOTE I therefore to the primary AT sibook of O thopedic Surge y for Surgery D J = 10 \sim c (th. fth. Fred. = 7 x x book of O the ped c Surge y for Nederla Band ans) j the book primary B. h. h. f. 1 \sim 8.7

THE MACMILLAN COMPANY Publishers

CO-ST FIFTH WINT NEW YORK

CHICAG BOLTIN SAN FRANCISCO ATLANTA DALLA



Lippincott's Standard Texts

BECK-The Crippled Hand and Arm

By C 1B ck M D FACS Che go Oct vo 243 Page 302 Illustra
t s Cloth \$7

MUIR-Text Book of Pathology

L C tqb tali a C a b i

THOREK-The Human Testis

By Max Thorek M D Sug on a Chief American Hospital Chi ag Octa o 548 Pages 308 flustr tions Cloth \$8 00

DAVIS—Applied Anatomy Stheat n

By Gwilym G Davis Thoroughly s vised by George P M iler MD FACS of the University of Pennsylvans Oct vo 638 P g s 631 Illustr tions in c lors and bl ck Cloth 8900

The hash like with person though the wold that the an comment of a cut on libe dome part 1 by the been copility by the pt dispose of the p

WILSON AND COCHRANE-Fractures and Dislocations Treatment and After Care

By Philip D Wi on Instructor in Surgery Harvard M deal School and ne of the cat sof Joele G ldthwait of floston and Mean A Coch an whorse c t dw ch

ANSPACH-Gynecology Se nd Ed t n

By Bro ke M Ansp ch M D FACS Prof r of Gynecol zy J fferso M d al Colleg Ph ladelph Oct o 752 Page 53 III str t ns S Col d Pl fes Cloth

J B LIPPINCOTT COMPANY

LONDON S 18 S PHILADELPHIA S 1792 MONTREAL S 62 I 16 J h S Ad l M W C 2 E wW h S U Boild

HIST READY

PRACTICE OF

GYNECOLOGY

By HENRY LELLETT M.D. I RCPI

(in nel) nd 12 1 d tille (i th 39 c al

THI, distinguished author 1 one of the world's foremost pecualists in the field of rane cological practice. Hi text is replete with the results of he long and rich experience. It has

FACS

A few book by

Sure wal Diagnosis and Treatment Litted by ALBERT J OCHSNIK MIL FACS Louis Jume a die e la l'y SLOWE II C d St CIA

The road and Themus BU ANDRECOME NO CACS E at El

Modern Urology Idt Iby HUCH CUROT VID I 16 5 7 lumo

1-155 Infections of the Hand Realting RANSSII MD TACS

Soute Dal Orthory die Surgers By ROLLI BUILTINGS ACD TACK See L M.E.L CV & \$1 ...

1111 34

CI A Ston

1/ 6 5 (

Practical Local Anesthesia BY ROBERT EMMETTEMEN MID TAG

Braun s I ocal Anesthesia

Talted of itd is MAICOLM MARRIS MID 1 MIS CI IA Se

R IMMIKCHITIR MD I 165 CI & Sea

Minor Surgery B TORN C VAUCIUS VID PACS ATHRIC BLESHAM MD

Manual of Gynecology B TOHN O POLAK MED TACK and Ed

Di eases of the Nose and Throat BECORNILIES COARLIA AID FAI

Surren B ISTITLY CASHILLEST MID 1 VO w alfd w

- tribled ton Detec 18 hors to the 2 7 H 1 at 3

You chapters of maker importance

muser edition arou ed so much fixorable com ment for their masterly pre entals in have been br ught thoroughly up-t >date

I the secrels the volume po -e purscular aftr cti n in the prefu ion of its illustrations

tun which pertray fel Ix leb the variou tages f different operation

S WASHINGTON SO

LEA & FEBIGER

PHILADELPI

PYE-Surgical Handicraft

NwR dv

N w N nth Edt n

Have You These Books of Well Established Super excellence?

WILLIAM WOOD & COMPANY (E : 1804)

5) Fith A NwY k

(New 3rd Revised Edition)

Crossen's

Operative Gynecology

B HARRYS CROSSLY WD FICS Pol to ICI I
G logs W hagto L ret M I relSchool G or log t
i Ch It B rn Hospit I W h gt U t b pe

A EW edition of a Cros en book is like the addition of another old master to an art gallery

operation 1 taken up in minute t detail in the volume both in text and in illustration

ra The full ligy ect to open the first to open t

C V Mosby Co, Medical Publishers





Lukens Sterile Fatgut

With Dulox Needles L DEWLL LUNGAS CO

TWENTY YEARS OF SURGERY

SURGERY, GYNECOLOGY AND OBSTETRICS IWENTY YEARS OLD

THE first copy of Surgery Generology and Obstetrics was issued July 1 1905. In an editorial announcement printed in the initial number were the following words.

SURGERY GYNECOTORY AND OBSTETRICS has been evolved in the minds of its organizers from a feeling that the field of the three allied specialties represented by its title is not overcultivated and that there is already a place for a creditable magazine representing in one publication these three divisions of surgery

It was also conceived that specialists for whose success is required the highest adaptability for their calling combined with the cultivation of technique the scientific spirit and the highest industry and experience should have a direct supervision of the contributions to the literature pertaining to their own work. Hence practical surgeons gynecologists and obstetricians will direct editorially the trend of policy of Surgery Gynecology and DORSTPERGS.

It was also conceived that a living journal should be a leader to the thought for which it stands not alone a depository for established facts that its editors should be in position to discern and to bring forth the truths of thought of men of tomorrow rather than to pationize reputations of yestiralay at the expense of valuable new material that practical men dealing with facts and actually en gaged in the work of the day are best fitted to discern the signa of the future and to supervice and direct the course of its literature

We believe that the best medical journals should be controlled financially by those who are interested in their hierary development. We also believe that ultimately this need not involve financial loss.

The editorial staff of SLEGERY GYNECOLOGY AND OBSTLERICS feels deeply that there is a future for this kind of publication and not one of its members will be satisfied if the journal does not take immediately a prominent place in the world of medical journalism and ultimately a leading position

These words of that editorial confidently written twenty years ago by the inexpenenced but hopeful editorial staff of Surgery Cynecology and Obstet rices have become a prophecy. I rom the beginning its editors have exerted every



PROCEETS OF SURGIRY IN THE LAST TWO DECADES

ITH the present issue Surgery Gynelology and Obstetrics completes the twentieth year of its existence. The achievement of two decades must well repay the sacrifice and devotion of its Founder Dr Tranklin H Martin. It was a fine thing for a surgeon in active and successful practice to devote his time and energy to the promotion of another journal in the field which had been so ably covered by the Annals of Surgery. Today America has 120 000 000 people yet even twenty years ago with 90 000 000 people. In needed another organ for the expression of a growing surgical profession. Rightly the attempt of the editor of Surgery Gynecology and Obstetrics from its inception was to make the journal an adjunct to rather than a competitor of the Annals.

Twenty fruitful years have made a great change in surgery. The pathology of the dead house which made so excellent a foundation has been supplemented by what Moynian has so apily termed the pathology of the living. Assess has replaced antisep is I ocal anasthesia has come into its own. Pthylene with or without ether has added to the ments of general anasthesia safety and greater freedom from pulmonary complications. More careful preparation of patients for operation made possible by precise studies of the blood has reduced mortality and brought relief to those apparently beyond aid.

The tide of specialization made necessary by extraordinary additions to knowledge be; and the possibility of any one man's grasp has brought a co opera tive spirit into medical practice. One can trace through the development of pecialization like the theme of a melody the consistent purpose of carrying the benefits of modern medicine to the sick.

One must admire the pioneers whose exploratory operations on the brain and spinal coid established the frontiers of neurologic surgery and made a firm foundation for further advancement. Attention first concentrated on how best to open the calvana is now focused on what should be done after it is opened. The sufferers who formerly endured the agony of the various tics can now be safely relieved and many patients with tumors of the brain and spinal cord of a type once considered hopeles are enabled to return to a useful life instead of continuing to chronic invalidation blindness paralysis and death

Great advances have been made in those sciences which protect the blessed sense of ight. The glaucomata are no longer allowed. like thieves in the night to steal away the power of vision.

Every human being has the divine right to look buman. One of the compensations of the Great War was the development of plastic surgery of the face a new special field in surgery which has given astonishing results. 716

the International Abstract of Surgery Each year from the time of the initial publication the scope of the journal has been amplified and its material strength ened In its original article department in its editorial department in its abstract department, and in its departments of technique and book reviews, we have sought to make it a magazine that would satisfy all specialists of the science and art of surcery

Judging from its support in numbers and in class, the editors have every reason to believe that their efforts have been appreciated by the discriminating readers of the best surgical literature and that the policy announced at the beginning of its publication is a sound one, and if efficiently pursued will warrant the continued approval and support of the practitioners of creditable surgery

The success of the journal has been due in great measure to the active support which has been accorded the editors by the leaders of the medical profession. Space does not permit mention by name of all the men who have given generously of their time and inspiration. It is a great pleasure however to present in this issue portraits of the three men who have been the chiefs of the Editorial Board throughout the twenty years Nicholas Senn 1905 to 1908 John B Murphy, 1908 to 1916 and William I Mayo for the American College of Surgeons 1016 to the present time

FRANLIN H MARTIN



A sound understanding of diseases of the thyroid has been almost entirely a development of the last decade. The chemist the research worker the internist and the surgeon have organized and combined to bring about the safety with which the patients with evophthalmic and toric gotters are now restored to health by surrical means.

Thoracic surgery ones much to the W man to relieve scrious conditions of the hear the pleurar and the esophagus and h

the knowledge of what can be done and a new per pective of what may be done

In shdommal surgery, the advance has been startling. Trily \ ray diagno is and better preparation of patients for operation has greatly reduced the mortality and increased the percentage of cures of cancer of the stornet. While the surgical treatment of gastric ulcer has nightly grown more reducal, that of duodenal ulcer is anything has become more conservative. The spleen of unimportant function when diseased has been found to be a serious menace to the life of the blood and by focusing attention on certain blood dysersass has led to studies of funds mental importance. In surgery of the gall bladder cholery steatomy has gradually replaced cholecystostomy when the disease is confined to the gall bladder al though cholecystostomy remains the operation of choice when complications cust in the large bide ducts and the panciers. Cancer of the large intestine and rectum has received much attention and radical operations in this unpromising field of surgery have given a percentage of cures greater in this region than in any other organ in the body except the fundus uter.

Cynecologists have become more conservative. There is less ovarian and uterine tinkering and a brilliant body of surgeons has added abdominal surgery to its repertoire. Obstetnes and the surgical care of obstetned injuries a fundamental branch of surgery previously lost in gynecology today forms a splendid specialty which is conferring new blessings on nomanhand.

The urologists with the accurate diagnostic and therapeutic measures which they now possess have brought certainty into the surgical treatment of urogenital conditions and thanks to them the treatment of neurasthenia by nephrorraphy is a thing of the past

Orthopedic surgery has passed from the stage of harness making to the application of well thought out surgical principles a school of teaching of which Si Robert Jones of Liverpool and the late lamented Robert Lovett of Boston were the leading spirits

Of the many newer additions which have come to the aid of surgeons radio therapy is the most important. Through the sound efforts of talented workers the e-valuable agents have passed beyond the stage of exploitation.

The greatest event in the history of American surgery was the formation in 1913 of the American College of Surgeons due to the vision and courage of Dr



John B. Trumply



Franklin H Martin This organization has raised the surgical standards of medical education. It has rightly focused attention on the fact that the mere possession of a diploma to practice medicine does not make its possessor a specialist in all branches and that while experience is necessary in the making of a good surgeon ways and means of gaining this experience must be provided which are not at the expense of the unfortunate patient. The College justly insists not only on a grade of excellence in surgery which can be gained only by serious graduate study but also on observance of the tenet that the ethics of the surgeon shall be above reproach. In no way has the influence of the College ben felt to greater advantage than in the standardization of hospitals which has changed hundreds of boarding houses for the such into hospitals in the truest sense of the word which compare favorably with similar institutions anywhere in the world. The American College of Surgeons has taken its place as one of the most beneficient of American institutions.

We may well look back with pride and satisfaction on the advances which have been made within the lifetime of the journal Surgery Gynecology and Obstetrics with fuller appreciation of what this adventure in surgical journalism has done to forward the making of surgeal listors.

WILLIAM J MAYO

TWENTY YEARS OF SURGERY AND AN INDEX

VITHIN the next few months SURGERY GYNECOLOGY AND OBSTETRICS will present to its readers an index of volumes 1-21. To those long familiar with the journal the value and importance of such a volume will be obvious. For those whose acquaintance has been of shorter duration it may not be amiss to recall the purpose of its editors as declared in the first number and some of the outstanding events of its past history in order that the significance of an index volume may be appreciated

On the editional page of the first number of volume 1 dated July 1905 appears the following They (the editors) realize that there is no call for an other ordinary surgical journal and that if they do not succeed in making this a journal far beyond the ordinary there is no reason for its existence. As to the measure of their success in carrying out this expressed purpose the index volume is the best indication.

The list of contributors to the first number is of interest. Nicholas Senn of Chicago. E. D. Montgomery of Philadelphia. Weller Van Hook of Chicago. Eugene Boss- of Grand Rapids. J. Clarence Webster of Chicago. Ednard P. Davis of Philadelphia. J. Whitindge. Wilhams of Baltumore. J. Chiton Edgar of New York. Henry C. Coe. of New York, and Henry D. Fry. of Washington. D. C. three of them specialists in surgery four in gonecology three in obstet rics—a notable company. The first article was by Nicholas Senn. on. Iodine in Surgery. with Special Reference to Its. Use as an Antiseptic. one of the best known and widely commented upon of his many contributions to surgical hierature.

In later numbers of volume 1 appeared Tuffier a paper on conservation of the ovartes and uterus in operative procedures upon the uterine adnexa. Kanavel's first contribution on the pathology and treatment of hand infections. Cushing a proposal to establish cerebral herma as a decompressive measure in the treat ment of inaccessible brain tumors and Yates experimental study of the local effects of pentioneal drainage in which he showed conclusively the futility of attempting to drain the general pentioneal cavity

In the first numbers of volume n appeared papers by Mayo-Robson Lexer and Duchrssen three of the most enument of European medical men. In the same volume appeared a discussion of the treatment of fractures of the femur by Davison with illustrations showing the use of the Balkan frame for balanced supersion of the lower extremity. A contribution by Carrel on blood vessel surgery another by Brower on septic infacts of the kidney, a third by Blake of mixenesium sulphate as an ansisthetic and in the treatment of mixenesium sulphate as an ansisthetic and in the treatment of

net

In volume in appeared Crile and Dolley's clinical and experimental observations on surgical harmorrhage a symposium on surgery of the large intestine with particular reference to cancer of the sigmoid and rectum by C. H. Mayo Chen, F. Rongtong and Legach C. Bloodgood and a contribution by Senn on

George E Armstrong and Joseph C Bloodgood and a contribution by Senn on Tendon Tissue versus Catgut Ligatures in which he said 'The surgeon who re lieson the metallic suture—gold silver or bronze aluminum wire—in holding living tissues in permanent apposition will sooner or later learn that nature does not tolerate such interference for any length of time. The employment of metallic sutures will at no distant time be limited to the suturing of bone

In 1907 Wertheim was invited by the editors of SURGERY GYNECOLOGY AND DISTRIBUTION OF VITAL America and address the Chicago Gynecological Society. His address on Radical Abdominal Operation in Carcinoma of the Cervix Uten appears in volume iv In the same volume appeared John B. Murphy's comprehensive discussion of neurological surgery and Watkins paper on the non-operative treatment of pelvic infections.

In volume v appeared W J Mayo's important contribution on acquired diverticulities of the large intestine C H Mayo's description of the treatment of the posterior capsule of the thyroid gland based on 375 operations and a symposium on the end results of the treatment of carcinoma of the breast by Vander Veer of New York. Greenough Simmons and Barney of the Massa chusetts General Hospital Jonas of Omaha Willy Meyer and Dennis of New York.

In January 1908 the numes of A W Mayo Robson B G A Moynihan John Bland Sutton John Stephen McArdle Harold J Steles and James Ruther ford Monson were added to the editional taff and the publication of a separate edition for the British Empire was begun. In the January number of 1008 were contributions from three of Great Britain's foremost surgions—Bland Sutton Moynihan and Mayo Robson. The latter in writing on intersitial pancreatitis in its relation to catarrhal jaundic, called attention to the frequent association of pancreatitis with inflammatory disease of the bile passages and the importance of conserving the gall bladder in order to secure adequate drainage of the liver and of the bile passages—observations which after 17 years are still of basic and primary importance.

In the same volume were papers by Deaver on the medical and surgical treat ment of gall stones by Connell on peptic ulcer of the jejinnum by Coley on bone sarcoma by Lane on chromic constipation by Cushing on the technique of crainal operations by Reverdin on the intraglandular enucleation of thy road idenomata by Murphy on perforative pentionitis by Rodman on the development of gastric cancer subsequent to ulcer and by Coffey on the principles in volved in the treatment of retrodisplacements of the uterus

Space does not permit us to review in detail succeeding volumes Friedrich's

TWENTY YEARS OF SURGERY AND AN INDEX

VITHIN the next few months Surgers Gynecology and Obstetrics will present to its readers an index of volumes 1-21. To those long familiar with the journal the value and importance of such a volume will be obvious. For those whose acquaintance has been of shotter duration it may not be am 1 to recall the purpose of its editors as declared in the first number and some of the outstanding events of its past history in order that the similicance of an index volume may be appreciated.

On the editorial page of the first number of volume 1 dated July 1995 appears the following They (the editors) realize that there is no call for an other ordinary surgical journal and that if they do not succeed in making this a journal far beyond the ordinary there is no reason for its existence. As to the measure of their success in carrying out this expressed purpose the inder volume is the best indication.

The last of contributors to the first number is of interest. Nitholas Senn of Chicago. E. E. Montgomery of Philadelphia. Weller Van Hook of Chicago. Eugene Boise of Grand Rapids. J. Clarence Webster of Chicago. Edward P. Davis of Philadelphia. J. Whitindge Williams of Baltimore. J. Clifton Edgar of New York. Henry C. Coe. of New York, and Henry D. Fry. of Washington D. C. three of them specialists in surgery four in gynecology, three in obstetences—a notable company. The first article was by Nitholas Senn on Todine in Surgery, with Special Reference to Its Use as an Antiseptic one of the best known and widely commented upon of his many contributions to surgical hierature.

In later numbers of volume i appeared Tuffier's paper on conservation of the ovaries and uterus in operative procedures upon the uterine adheet. Kanavel's first contribution on the pathology and treatment of hand infections. Cushing's proposal to establish cerebral herma as a decompressive measure in the treat ment of inaccessible brain tumors and Yates experimental study of the local effects of peritoneal drainage in which he showed conclusively the futility of attempting to drain the general peritoneal cavity.

In the first numbers of volume n appeared papers by Mayo Robson Lester and Duchrssen three of the most enument of European medical men In the same volume appeared a Ascussion of the treatment of fractures of the femur by Davison with illustrations showing the use of the Balkan frame for balanced suspension of the lower extremity. A contribution by Carrel on blood vessel surgery another by Brewer on septic infacts of the kidney a third by Blake on the use of magnesium sulphate as an anisathetic and in the treatment of tetanus and a fourth by Walkinson the treatment of cystocele and prolapse are a few of many important papers which appeared in the second volume



operation for unilateral tuberculosis (total mobilization of the chest wall) C H Mayo s report of the results in 1 000 operations for gotter (March 1000) Brewer and Liggett's account of the direct transfusion of blood with paraffin-coated glass tubes (September 1909) Frazier's results in the treatment of spasticity by resection of the posterior roots of the spinal cord (September 1010) Quinby s experimental work on intratracheal insufflation (November 1010) Crile's enun ciation of Anoci association-a New Principle in Operative Surgery (August 1911) are only a few of the many important contributions appearing during the first five years of publication of the Journal

In the forty volumes which are brought to a conclusion with the present number unward of five thousand original contributions have appeared. They represent the growth and progress of twents years. Many of them were the source and inspiration of growth. These contributions have not been confined to one phase or department of medicine—they have represented faithfully and impartially the three great branches of medicine which were chosen as the name of the Journal They have included both reports of experimental work that pointed the way to progress in surfical practice and reports of attained results that rendered more universal and more sure the application of well tried prin ciples. To recite the list of authors is to call the roll of eminent workers in the field of surgery of gynecology and of obstetrics not only in the Americas but in Great Britain on the Continent and in more distant quarters of the globe It is the belief of the editors that the publication of the index volume will make more readily accessible and more widely appreciated this comprehensive and noteworths addition to the world's surgical literature

SUMMER L ROCK

SURGERY, GYNECOLOGY AND OBSTETRICS

AN INTERNATIONAL MAGAZINE PUBLISHED MONTHLY

VOLUME YT

IUNE 1975

NUMBER 6

TUBERCULOSIS OF THE TONGUE

BY J M T TINNI I MD F I CS AND J M T FINNEL JE MD BUTIMERE MARYLANT

THE purpose of this paper is not so much to revix exhaustively the literature, as it is to report a sense of it cases of this comparatively rare manifestation of tuberculosis. The cases all of them hatherto unrepr

onis o

pensi Baltimore Severil of the series have comunder the direct ob ervation of the authors sufficer to my that the literature on the subject has been rather thoroughly studied and epitomized. Anyone withing to go more depth into the subject is referred to the very excellent bibliographies appended to the contribution of Delasan on Ruck Durante and Handheld Jones, which have been friely used by used to

The first reference to tubercle of the tongue wa app trently made by Morgagni in 1 61 but 7 his de cription 1 rather in conclusive and as almost any sort of tumor at

first primary case was put on ricord by Enteneur in 1872 followed by Clarke in 1876. The latter is one of the lew cases in which the claim of a primary lesion was made good by as subsequent complete autopsy which revealed no other tuberculous lesions. In the same can Nedopid reported four cases, three of which however will certainly not bern very dose inspection of their claims to bern, primary. Gletteman in 1888 recorded the first case of a primary tongue lesion which was apparently cured by treatment one of very few to be found in the literature.

On certain features of tuberculosis of the tongue the conclusions of many contributors to the literature on the subject are in marked accord on others there is equally marked discord. The opinions therefore expression in this paper are based partly on reading, partly on analysis of case, and partly on our own observations.

b creations

Tuberculo 1 of the tongue 15 quite rare occurring, principally in cases of advanced pulmonary tuberculo 15 and 15 not infrequent 15 as ociated all o with larging laminfesta trues. There are very few cases of undoubted primary tuberculous lesson of the tongue on record. Considering the number of active tuberche bacelle which must come in contact with the organ during the life of inn ordinary individuals and o much more so in the case of one suffering with pulmonary or larginged tuberculos. This fact can be explained only

wis recorded by Lordal in 1804 followed in credic by Lowis 1932, ken wid 1831. I kming, 1850 Cildimester 1851. Light 1858. Wigner 1802. Firkhow 1864 who was the first to re 1814. Lee of manutops. Ill of these cases with a filte see index variety that if there were tuberculous leston ilemonstrable etc. where in the book chiefly in the limi. The





Is, Tube uli of tou Lo pow photomrs, ph hingg tells

cut tent lesions blood borne embolus or lymph botne organisms. Theoretically any of these modes would appear to be possible but practically the econd and third would seem to be the most common.

The site of predilection is usually stated to be the tip or natignt of the tongue. It would cem however that the dorsum anterior to the circumvaliate up pailies is equally as commonly attacked. Less otten the lesions may be found far back on the base on the inferior urface or on the frenum. We have in our literact illustrative of every one of these laxitions.

We have been unable to demonstrate any constantly recurring preds posing condition or triuma uch a the a sociation between leucophika buccali and cancer pipe stem and cancer or positive Wa errornn and cancer. In none of these care has lett coplaked been a noted feature none has had a po itine We ermann one or two have been pipe smokers but no relation could be demonstrat ed between the position where the pipe was habitually held and the ite of development of the ulter Several of the patients had bad teeth with varying degrees of pyorthora alveolaris Several sought to trace the forma tion of the lewn to one ingle can e biting the tongue rubbing of a broken tooth or plate

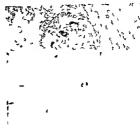


Fig 2 Ih tom cro-raph ho no tubercles in t ber culo is fith to use

and in one instance a shoemaker to the

trauma arising from the shoe nails habitually held in his mouth. If then we leave out of account the presence of a pre existing active laryngeal or pulmonary lesion as a predispos ing factor we are forced to the conclusion that trauma is the one important etiological factor One of the striking features in this series of cases is the absence of any great degree of pain in almost every instance. This is quite at variance with most of the oninions hereto fore expressed. True several of the patients complained of some discomfort a burning sensation or a soreness most marked when eating highly sea oned or very hot food In most instances this was not of sufficient degree materially to after the diet excruciating suffering so frequently referred to in the literature was conspicuous by its absence. There are on the other hand exeral cross in which even critical question ing failed to elicit any complaint of pain. It would appear then that pain is not a par ticularly prominent feature of the disease and that when present and in marked decree it occur as a rule late in the disease. It is intere ting to note that when pain becomes a prominent feature there is usually as occasted with it a profuse salivation which heretofore has not been marked

by the natural immunity which the buccal cavity seems to enjoy against many forms of virulent organisms. Whether this apparent immunity is due to almost constant motion of the organ the character of the mutous integument the normal secretions or some other unexplained fuctor it is impossible accurately to determine

Tuberculosis of the tongue may be primary or secondary the latter being by far the more common To assert that there is no such thing as primary tuberculosis of the tongue as some authors have done is to make a far too sweeping statement Just as it is frequently very difficult to decide whether a certain phenomenon is cause or effect so it may be quite as impossible to tell whether a given lesion may be the primary focus or a second ary manifestation of the disease. If it is possible for a tuberculous ulcer to develop in a traumatized area of the tongue by implanta tion of some of the organisms present in the sputum e g bacilli from an active pul monary or larungeal lesion why may it not he possible for a larungeal or pulmonary tuberculosis to develop from aspiration of organisms from an open lesion of the tongue? And in the absence of any demonstrable physical signs of tuberculo is elsewhere why would one not be justified in pronouncing it a primary lesion of the tongue? We have in our series at least 4 cases which seem to have the right to be classed as such. The secondars cases are far more common in fact most of the reported cases have occurred quite late

tion

Tuberculous of the tongue may manifest itself in several forms (1) Lupus either sclerotte or ulcerative. This form seems to ocur only as a direct evitension of a similar lesson from the face cheeks or lipp, and apparently has never been observed as an isolated lesson of the ton, use. We have no cases in our sense failing in thi drission (2) Tuberculoma. Usually a single notule deep in the muscular substance of the tongue commonly mistaken for a neophasm or gumma until after excision. It may be of long duration

but as a rule tends to ca eate soften form a cold abscess and ulcerate In this way it is often the antecedent of an ulcer though it is rarely seen in its original state. There is at least one such in our series (3) Cold absces referred to above as an intermediary stage between tuberculoma and ulcer. It is very uncommon to encounter it in the abscess stage though such cases have been reported We have none to add to this group (4) Papilloma an hypertrophic proliferative type giving a soft vascular warty tumor an uncommon form. One case in our series demonstrates this subdivision (5) Fissure a special form of ulcer and one forming a large group It manifests itself as a superficial crack sometimes branching which when its edges are spread reveals a surprising depth with a broad base frequently studded with tubercles or covered with caseous material

result of a tuberculoma rupturing on the sur face before it has had time to spread and become a wide ulcer This is rather question able however since fi sures as such may occasionally per ist for a considerable period of time. We have two cases of fissure in our series (6) Ulcer the most frequently en countered tuberculous le ion of the tongue usually rather shallow with indefinite irreular almost serpentine edges which are not everted not undermined and as a rule are not indurated The base is usually covered with grayish white material penetrated in places by tufts of rather pale unhealthy looking granulation to sue They may be single or mul tiple and show a marked tendency to heal and break down again either wholly or in part At times on close inspection small tubercles may be seen jut beyond the edges of the ulcer these tend to coalesce break down and thus advance the ulcer The remunder of

> s in fail rect

attack upon normal tissue implantation in traumatized areas direct extension of pre



Another point worthy of note in the figures of renorted cases and one on which practically all the authors agree is the great prepon derance of cases in males in which respect tuberculo is of the tongue resembles car cinoma. Our statistics are in entire accordwith this there being but two women in the fifteen cases. An interesting fact is the compicte absence of cases of tuberculous of the tongue in the colored race both in our somes and in the literature particularly in view of the frequency of other types of tuberculous manifestations in this race

There is a wide variation in the age of in cidence cases being reported in very early childhood and one in an individual of 81 vears as the other extreme Most of them however fall in the period between 30 and 60 Analysis of our cases shows two in the twenties and one in the early sixties the other twelve falling in the limits stated above with the greatest number seven occurring in patients in the forties

There appears to be no constant regional adenopathy in connection with tubesculous tongue lesions the submental submaxillary and cervical clands may or may not be en larged Certainly their presence or absence is no striking feature of the disease

It i frequently quite difficult to obtain tubercle bacilli from scrapings of the lesion Sometimes it is possible to demonstrate the

organi ms constantly present in the mouth thi is usually useless. So allo the micro scoric picture i sometimes atypical and difficult of interpretation notably in the fre quent absence of giant cell formation which is such a common feature of tubercle forma tion elsewhere

nign or aphthous ulcer and the more rare my coses etc. The c are what might be termed negative aids while the positive are the actual appearance and clinical characteri ties of the lesion itself the proving of an active tubercu lous lesion elsewhere the microscopic examina

tion of material removed for organisms or tubercle formation and the inoculation of sits centible animal The characteristic common to tuberculous lesions elsewhere in the body namely the tendency to temporary healing

widely differing forms of therapy have been tried and advocated from time to time. These range from many kinds of local applications -- rodoform powder copper sulphate silver m trate phenol salvarsan paste bismuth paste violet ras \ Ray radium-through surgery -local cauterization ever ion with or without the regional gland and total extirpation of the tongue-to general treatment with injections of salvarsan tuberculin and various in dividually prepared specifies. Lycept in a few instances the results seem to be the same -temporary improvement with healing and relief and a subsequent usually prompt re currence of the trouble in spite of continued

The prognosi therefore seems uniformly bad though there are a few case reported which are apparent cure The general infec tion the fact that mo t tongue le ions are

cuit to con ider the tongue lesion per se as a separate entity

CASE REPORTS

We have fifteen cases to report showing

period of somewhat over 21 year several of the more recent cases have been under the per sonal observation of the author

Case 1 Joh s Hopkin Hoptal of 4317 Ms H k ag 48 yers hue f Admitted Jin ary 20 19 3 d charged Febru ry 26 1936 Ib I mily h t y s ess thally neg ti e cept that on broth r h s a ch o c c ugh and se eral au ts nlucle I d of con mpti n Pat nt general health has be good Aecros s f th law f llowed remov t of a t oth 20 months go



Another point worthy of note in the figures of reported cases and one on which practically all the authors agree is the great prepon derance of cases in males in which respect tuberculo is of the tongue resembles car cinoma. Our statistics are in entire accord with this there being but two women in the fifteen cases. An interesting fact is the complete absence of cases of tuberculous of the tongue in the colored race both in our sense and in the interature particularly in view of the frequency of other types of tuberculous manifestation in the Trace.

There is a wide variation in the type of in cidence cases being reported in very early childhood and one in an individual of 81, vears as the other extreme. Yous of them however fall in the period between go and 60 haulsus of our cases shows two in the twenties and one in the early sixties the other twelve falling in the limits streted above, with the greatest number seven occurring in

patients in the forties

There appears to be no constant regional adenopathy in connection with tuberculous tongue lesions the submential submixullary and critical gland may or may not be en larged. Certainly their presence or absence is no striking feature of the di case.

It is frequently quite difficult to obtain tuberele bacilli from scrapings of the lesson Sometimes it i possible to demonstrate the

organisms constantly present in the mouth this 1 usually useless. So also the micro scopic picture is sometimes atypical and difficult of interpretation notably in the frequent ab once of grant cell formation, which is such a common feature of tubercle formation of exhere

lesion itself the proving or at a lous lesion cl ewhere the micro copic examina

ton of material removed for organisms or tuberede formation and the inoculation of su ceptible animals. The characteri tic common to tuberculous lesions elsewhere in the body namely, the tendency to temporary healing with subsequent reappearance often repeated may be of diagnostic value in thi lesion may be of diagnostic value in thi lesion.

so far as treatment is concerned many and widely differing forms of therapy have been tried and advocated from time to time. These range from many kind of local applications

the regional gland and total extirpation of the ton-ue-to general treatment with injec-

treatment

The progno 1 therefore seems unformly bad though there are a few cause reported which are apparent cures. The general indection the fact that mot tongue le ions are merely concenitants of an advanced pathology el ewhere would naturally affect the result very materially and render it extremely difficult to consider the tongue lesion per se a a separate thit?

CASE REPORT

We have fifteen case to report showing

period of smewhat over 21 years several of the more recent ca c have been under the personal object attorn of the author

CASE 1 Joh Hopkin Hopki No 1431'. Mr H K a 45 hos blose it Admitt di Junany 20 1000 km s house it Mantil di Junany 20 1000 km s house it F br ar 26 19 that no by the se it le N no alive 9 pl that no by ther has a ch on co gh nd s veal annis nd u cle d d of o sumpt on 141 in 18 gene fh alth h s beeng od N cros of the upper 3 N fillo de trem al of a toot by month se

about r 5 centimeters anteroposteriorly and o 75 centimeter vertically Margin are rather in

the alveclar ridge is an irregular ulcer measuring sion however the ulcer is distinctly larger extend

secon I arregular ulter on the outer border of the sullingual duct elevation covered with thin exulate Manipulation of the ulcers a slightly nameful There is no evidence of the ulcer which was formerly on the dorsum of the tongue no palpabl glan is Op ration II Cauterization of ulcer of

of the tongue vas still somewhat painful and there was a considerable continuous ache on the right side of the tongue (Returned to Di pensary for ob servation for a couple of months , hen patient was lost sight of) Letter from a friend Jebruary 8 1017 said that the nationt had died several months

noticed. There is some pain mostly in the right si le not constant usually noticed only when irritate I by food or talking. Patient is well nour the? The tongue is bound down on the left side by broad adhesions to the floor of the mouth preventing its protruling and drawing it somes hat toward the left. On the lorsum of the tongue is an irregularly outline! ulcer about the size of a half

paintation and dyspings on exertion for several years He has no chronic cough no nightsucats

t is 5 ratter precipi ous and somewhit in furated There I con i lerable salivation it the middle of th submarill re scar are t o small sinus s from thich pus mit be expressed. The lungs are ab solut ly neg tive. The Wassermann is negative Stutum examination i repeatedly negative for tubercle barilis Operation III-curetting and

margin with logical ding No 16733)

still about the ize of a h e cent piece with instructions to return to di pensary for treatment mi Kn Il Af uitel June 14 1016 dischargel Jun 26 1016 Int roal hi t ry Sirce leaving if h nilitha 777

CASE 8 Mr C C H age 37 years Admitted October 26 1917 dis harged Dec mber 5 1917 The family history is essentially negatic latient's general cats 5 BO

a onot moderately. Lattent admitted to hospital

He

He

with a frank fol ar pneumonia of the left upper and rn 11 e lobes quite s ck. A v ry slow recovery by I sis with everything eventually clearing up but an area about 2 inches in hameter near the angle of the left scapula He had a slight cough but practically

g neral nature an i charact r as on pre sous admit

ı

was go d

ı

١

out anew an i became much larger and very sore Patient has lost about 15 pounds which he at

artenes. Antenot hat of the tork e as exc. I the the cautery. Lath logical report by Dr. J. C. Bloa (2001). Taiberculosis. Sub. quent. In tory No local recurse to be used.

treated with it uth we it a u
I attent is a well nourished man not anomic On the
right side of the tongue near the tip is an utcerated
area the sz of a dime surrounded by hard in

Case 6 Joh's Hopkin Hospital No 54509 Wr H C ag 45 years 'dimitted June 19 1914 descharged July 8 1914 The family history and past history of pritient are native About 18 descent history of the family history and past history of pritient are native About 18 descent history of the family history and history and history and history of the family history of the family history and history of the family history of the famil

CASE 5 Johns Hopkins Hospil No 33138 Mr T k age 45 year Admitted Octob r 27 mb 10 1 v Th f ruly 1

the alveolar ridge is an irregular ulcer measuring about 15 centimeters anteroposteriorly and 0.75 centimeter vertically. Margins are rather in

side of the dorsum of the tongue extending well

ouet tell duration afound matiguit with the cistible transition into normal tongue tissue. There is a second irregular their on the outer border of the sublingual durt elevation covered their popular to the control of the control of the control of their popular their son exidence of the ulter which was formerly on the dorsum of the tongue no palpalle cland. Operation II Cauteriazion of uler of ulter their distribution of the control of their popular to the control of the control of their popular to the control of their popular to the control of the control o

11-complete excuson of the ulcer of the dorsum

of the tongue was still some hat painful and there was a considerable continuou ache on the right side of the tongue (Returned to Dispensary for ob-

noticed There I some pain mostly in the right side not constant usually noticed only when irritated by food or talking. Fatient is well moor sided. This congue is bound down on the left side by broad adhesions to the floor of the mouth per venting its protriding and dra mg it somer hat towa! I the left. On the dorsum of the tongue is an ingularly out the size of a half: seration for a couple of month when patient v as lost sight of). Letter from a friend February 8 1947 said that the patient had died several months previously but no cause of death was given CASE. Johns Hopkins Hospital No. 35956 Mf R C age 30 years. Admitted December 20 1948 of the State of the three countries of the service of the s

dges ther precip tous and somewhat indusated Th re is consid rable salivation. At the middle of the submarill ry scar are two small smuses from which pus may be expressed. The lung are ab solutely negative. The Wassermann is negative. Sputum examinat on is repeatedly negative for the trib child. Operation III—enuettage and

special enlargement of the glands of the neck. There

ua tie

n: 10n IV Admitte! June 14 1916 di charged Jun 6 1916 Interval history Since leaving the bosp tal about 3 mo 1h 30 n margin with belonged if dags
No 16733)
CASE 8
Mr C C
1077 C
history

health I
e ery n
los of
had \e
smokes
alcohol mo

alcohol moderately. Latient admitted to hospital ith a frank lobar pneumonia of the left upper and middle I bes quite sick. A very slow recovery by Ijssis with every thing eventually clearing up hut an area about z inches in diameter near the angle of the left scapula. He had a slight cough but practically

general nature in i character as on previous admi-

SURGERY GYNECOLOGY AND OBSTETRICS

no sputum No tubercle bacilii were found His On the left anter or half of the tongue t o th ls

shows imprism tover both apice p toulaly

giands paipable LA III i a un

750

pnumonia with wi ci iii. S I L ig vivous adm son. Impr sei n Eputhehoma Opera tion Dr Ston The tumor was excised with the cautery with a wife margin. Recovery was rap and une entital latbological diag oss tuberculo ses of the tongue and of the floor of the mouth Case iii. Johns Hopkins Hosp tal No 50120

DISPENSARY CASES

n 1 % C22 7

qu te sore for a couple of drys bout a ex sate the p tient sever ly bit the tongue ag in in the

snov 1
pharpn a d base of to gu re e ten ively un
cerated vith gr y b te memb ane. The epiglott s
is thicke ed co d mov n rmally but ar mark dip
conge ted. The chest i vell formed evid nec of



Ing 5 1 b real alcerts of t be Indirections (if 1 ne-J M I linux) and J M I Finn) Jr



active tuberculosis over right agex 1 ray shows

Sanatorium

C_A

CASE 1 Johns Hopkins Hospital No G 4949 Mr B R age 27 years Admitted January 2 1920 di charged January 26 1920 Family history

Ihis healed slowly under local treatment. At that time patient was in the arms in France Four months later ulcur reappeared on the tongue was given later ulcur reappeared on the tongue was given later ulcur reappeared on the tongue was wastermann was constantly negative. No improvement For the past ra months patient has had local treatment of various orts but condition has

perfectly well no might sweats or hemophy, and harmanton shows a well built man but thin and harmanton shows a well built man but thin and anamic. The tip of a complete and the state of t

lung and all over the left the change are tub reulous in origin and alme tembrary in character Scrapegs from the tongue ho type at tuber of form thom with several grant clls. I tent turn doer to tube tuber tuber to the control of t

Mr J
lsch
undes drei of tub ulot I t t h lth has
been fut h good H f i n r i f t on Has
nochrone gh hern it or lo ide ught I or
alout m mh o h t or t too no he
sorren a tth i f the tog I ft shought
sorren a tth i f the tog I ft shought
has been burn I with n i day the on as

became mor m rk t l r k pp ared at the

tip Th healed in about 3 weeks. Ever since then there has been a periodic reappearance of a similar condition listing irom 2 to 5 weeks at a time with intervals of freedom as long 1s 6 months. At present the lesson 1 about 6 vecks old. It cause some pain viben patient eats or talks much. Ex animation shots 1 vell nourn hed man with no pallor. Speech is a little thick, the tongue not enlarged. At the tip in the midline 1 a transverse thesure with gray white alimost cartilagnous edges. The base of the ulcer is comparatively clean no glan no glan.

ar The dept. The tongue under local angesthesia. Instoperative course was uninterrupted. Pithological report No. 3347. The character of the tissue strongly suggests a structure of the tissue strongly suggests are seen as the course of the tissue strongly. The tissue strongly suggests are strongly suggests as the course of the tissue strongly suggests are strongly suggests. The suggest of the s

CASE 14 John Hopkins Hospital No H1488 Mr C W age 54 years Admitted May 12 1924. discharg d May 20 1024 The father and two brothers died of tuberculosis one sister diel of

^ t ^ ~

w > i,i cm—a total of nine applications during the past 5 months. Tongue has constantly been some what sore with occasional burning sensation but no great pain. E amination reveals a tall emacrated r.

tine \ray of che t shots tuberculous consol i tion of both uppers p obtile evitation \text{ Sputum exami alton reveil mary tubercle bacili. He was adused to enter sanatorium CASES OF ---

1	1 1			Or parks	Pr m ry	la.	Dur o	Comple of Itys	Locateo	Ad op-	T tmen	Rmk
_	11 K	3	F	II I	S dary	T ber		Sump	Day # ***]	l
_	หบ		M		day	U? er	36 ye	34 le	Ŧ			
3	ACA	6	м	// F	P mary	t'k	S mio	Sump	Tp mells	\ -	C 50 xc	Peo d pros -e
_	JTF		М	F m	Р па у	เ	7-	MI	Marp: p	M k d		Propd on sec
_	ŤK	5	м	Labo	Sdy	Un	370	35 R	Tip and m lef no dram	Sight	Esc b	M kedep hilipro- lifer ti de i
6	II C	45	N.	15 qq1	Pmsy	10 prt	537	36 1	Mar do	Sigh	Caeriz si i	admis so ex yrs
7	RC	3	м	R po	S d zy	ll et	10	Simp	To I cal	V	E b	S t um
3	CCH	37	М	Army f	e 617	7 bert lo-	4 me	Simp	Feam d floor f m th	`	E ta ry	P pd gnos −e con m
	F S	•	М	Shor- mak	Secondary	Ulce	3 mo	Мt	Dorsem ad mag. aa f or	M Led	Ecu ।। श्रुक्	Setto\$ m
_	ins	26	32		5 dry	Fu	S ettå	Sump	D rs rs (Sery Lah	2 2	5 m xxx
	SR		F	House if	5 dy	U) es	7 k	Мt	Dor m far poste	Modet	l m ga	Pun man S to m
	BR	,	М	Frm	S dary	to:	6 m	Hel	th qua	1gh	Salre itr.	Se us orm,
3	JTM	_	М	CI k	PMuy	F103	5 377	nufs	T	A	£cus	
-	CH	5	M		S dy	tr:	В.	Sump	B hep	N	Radi M 12	S t same of m
3	FB	36	М	Labor	Punny?	ti)	Se nat m	\$ mp	D m	Mod	St sa tr	Ojna říted

C St bee

sug Primary sore about 10 years ago for which he had signs of lues \ray of ch st is negat e Sputum
e ammant on n gritiv for tuberculos W ss r
mann sugg stive egit ve Pati nt va exam
med t th Phipps T ber t is Clinic wher m

Climic lly the cale was quit d finit ly that of tub culous ut er of the t gue E cision as

recommend d but the p t at d h ed a y fo m of operat on and di appe red I gnosi ot th for be enfirmed by mic sopi e min tin of t sue but the can be little doubt chi c lly as t th atue f the trouble

SHAMARY

In analyzing these case reports there are certain points which would seem to bear

ed a a t set a with sellowish etu d te su roundi g area smooth ed with small special emphasis. Of the 15 cases 5 appear to merit classification as primary lesions-a very large percentage we realize On the other hand if careful physical examination reveals no suspicion of an active tuberculosis else where are we not justified in this assumption even though the claim cannot be supported by a subsequent autopsy -- because none was ob tained?

Three of the fifteen cases were operated upon on the assumption that they were careinoma In two of these cases the lack of induration in the lesion was noted in the examination but its significance was not then realized. In one instance and that the only one in the series in which a stony hardness of the ulcer and the glands existed the mistake would appear to be entirely justifiable

In four cases the tongue lesion was the means of bringing the patient to a doctor and thus led to the discovery of a most extensive tuberculo is previously unsuspected. In four cases the disease manifested itself either dur ing or following treatment in a sanatonum for tuberculosis

There are only two cases in women in con trast to thirteen in men Direct trauma seems to be the only important causative factor in any of these cases In no case was the traum's to be charged to that popular bugbear the pupe stem

I am is not a prominent feature in this list of cases. In only one instance and that a most fulminating case of only 7 weeks duration im mediately following childbirth was pain of the exeruciating character usually described encountered In two other cases the pain

might be termed severe while in the remain der it was almost totally lacking

The majority of the patients were in the forties at might therefore be classed as anoth er of the afflictions of middle life to no site of predilection for the development of the lesion any portion of the tongue may be attacked with most of the le ions occur ring anterior to the circums allate papillæ and about equally divided between tip margins and dorsum The ton ue le 10ns may be single or multiple - our cases are about equally divid There may or may not be any regional adenopathy in none of these cases was glan dul ir enlargement very marked and in several it was entirely absent

We have no special form of treatment to ad vocate It would seem wise however in a case which seems to be primary to treat it by wide excision much as if it were carcinoma. We cannot discuss prognosis even in the case of primary lesions radically treated as for lack of time we have not attempted to follow up all of these cases

The purpose of this paper is primarily to put on record the fifteen cases reported and for that reason we have not discussed the litera ture at length

DIBLIOGR APHY

- D LAVAN D BRISO Se n ca es of b ccal tuber ulo s ith ema k upo tub cuta ulc rato of the tongue A w 1 k M J 837 vl 536 558 uca S tov T ber ul f th t gu Laryn RUCL S SON T ber ul go pe St Loui 19
- 3 DERANTE L Tube 1 s fthe i ngue in Surg 9 6 lt 43 Il persendones R M T b cul u affect n
 - the gue Lact Lond 93 8

RLMARKS ON THE TLCHNIQUE OF GASTRECTOMY

BY T D MARTIL MD PACS (Ho) PARIS PRINCE

THAVE devoted the last 10 years almost exclusively to gastine and intestinal sur gery faithful to the principle that to per form well or if need be to perfect the tech inque in operation should be done in many

at definite conclusions as to certain points which I will bring out briefly in this article

PPEPARATION OF THE LATIENT

I need not emphasize that a patient who is about to undergo a gastrectomy should be prepared for operation with the greatest care Every precaution should be taken to lessen this septic action of the gastne contents the mouth and teeth should be carefully cleansed the stomach should be wished with antiseptic solutions—rodine solutions especially have been found very useful. The precautions nimited have become class reliable to the processing the processing the story of the processing the processin

In the presence of gastne cancer there often cut us 1 alrage infected ulcerating area that no washings can render harmless. "Ome times this ulceration is found even in association with simple ulcer of the stomach. In such cases I wash out the stomach and make culture, from the higher from such lavage By means of these cultures I pripare serum and vaccine which I use in treating the case.

Just before beganing an operation on the tomach Impert 20 cubic centimeters of anti-paramotococce erum. In a severe cancer case I impert also no cubic centimeters of serum into a lemation of cubic centimeters each of intiperfring normal intivit nonseptique and to cubic centimeters of antibiotobic results of the continuence of antibiotobic results and the paramotor of the operation while the paramotor is askep.

AN ESTHESIA

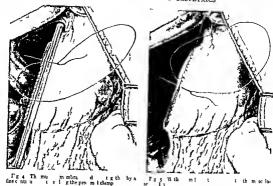
In d ing in operation on the stomach I al wass u c ether interth in preceded by a hypotermic injects of a centigram of mor phine by drochloride and a quarter of a milli

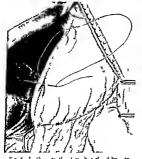
gram of scopolamine. The ether is given by means of an Ombredanne apparatus. By intering quality the scopolamine stops the excess salivation caused by ether and thus renders anasthesia, easier. I have found no appreciable difference as far is pulmonary complications are concerned in the use of spinal anaesthesia.

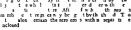
POSITION OF THE PATIENT

The patient is placed as for an operation on the bile ducts the upper part of the body is borzontal the lower limbs the middle part and lower trunk are steeply inclined. In this position all of the small intestine falls to the lower part of the abdomen and the subdia phragmatic region is as freely accessible as possible.











a been t



Ig 8 Ape frat gut u testh at tet the simah but the u membee f both org sis 1 11



Fg of The tima h ditistica op Amuco-mucou sut e loses both viscera. O er this n ther tes mus loserous to the m sculoser s

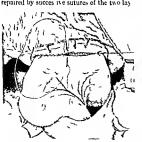
INCISION

be

ab

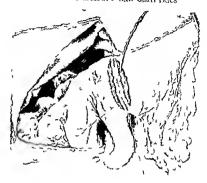
a transverse incision may be made across the rectus abdominis muscle which can easily be repaired by succes ive sutures of the two lay

ers of the sheath of the muscle. More often the rectus abdominis is cut on the right side so as to expose the pylorus clearly as the pylorus is often affected by lesions and often deeply placed Sometimes in lesions of the lesser curvature near the cardia the left rectus



f the serom sc 1 musc 1 1 vr bo ga tro-e t rost my i ry n a the grater c m com ature





les ribed a the p t

abdomins must be cut at one distance from the ribs to give project space. Sometimes both meet to an may be combined so as thoroughly to expose the entire stominh. It is ab obtain neces ary to special without forcing extraining. Kough han thing cruses many phenome as such as shock and pet thips all o infection which is provoked by the infection Wards of the property of the propert

OB VIION

gall bladder are notes and along the generative of the tomach. The gastrocole omegation is freely beginning on the left's de-

(I ig 1) When this detachment is completed the relation between the posterior uriace of the learn and the antenor surface of the

if by \$) doing the line visit of the missing recovery and after the greater mentum is detached the stown the scaused (Fig. 1). Then can be can the head of the missing and of the presence and the upper mesocolic portion of the second part of the duclement the lange duodenopmeteaut we set the right pristro epiploic artery and he plante attern the rest of a religated as done as possible to the head of the pances (1) g. I be means of a state past of the recovery and the plante of the duodenum in contact with the head of the duodenum in contact with the read of the duodenum in contact with the rest.

sels cut between the thread and a clamp With a compress the vessel are drawn out and detached together with the ganglia which accompany them The duodenum thus en

meters from one another The duodenum is cut as close as possible to the clamp which will remain attrached to the part of the stom ach to be sacrificed the clamp nearer to the polyorus This clamp is immediately covered with a protector ([ig. 2]) which completely hides the section of the intestine and prevents the clamp opening. Two sutures one white the other black to avoid any confusion are passed through the thickness of the duodenal walls as close as possible to the head of the pancreas ([ig. 2]).

The duod num is invaginated and the two sutures are tied. This method of closure will prevent the formation of any closed septic cavity and is superior to any other. It does

.

the vessels of the les er curvature are ligated at the exact spot where the stomach will be estimated than the exact spot where the stomach will be

at the exact spot where the stomach will be cettoned then they are cut. The same procedure is carried out on the greater curvature. One must avoid the excessive deniding of vessels on the outer parts of the stomach.

It is difficult to obtain schemin of the stom ach however clumsy and inexperienced one may be nevertheless it is always to be feared as I riported in 1921 it is possible to obtain with the diaphanesc pea perfect new of the badly irrigated portions of the stomach and intextine. With this instrument I have been able to discover that in very oblique sections of the stomach when preceded by ligation of the command and that at this level the suture often spatistics when this technique is followed.

Provened o A 7 april

When the vessels have been ligated the three branch elastic clamp is placed middle branch is removed and the stomach sectioned along the distal clamp (Fig. 3) The mucous membrane of the stomach which is clearly visible is drawn together by a fine continuous suture along the proximal clamp which is then removed (Fig 4) With the same suture one unites the musculoserous lay ers (Fig 5) In this way the stomach is closed by a two layer suture which in its turn is cov ered over with a seroserous continuous suture (1 ig 6) This very carefully made three laver closure gives far better hamostatic results than the more rapid but clumsier two laver suture generally used by hasty surgeons

The operation is terminated by a marginal posterior gastro-enterostomy which is done as near as possible to the greater curvature. This gastro enterostomy is made with great care

and is of the three plane type

When the gastrectomy is very extensive I finish the operation with a Polya the tech nique of which is shown in the figures

CONCLUPION

I have tried every method every technique every anæsthesia and have arrived at the following conclusions

t Respiratory complications are not de pendent on the kind of anasthesia. They are septic complications associated with the lesion and with the surgical handling which should be as rentle as po sible

2 There is much to gain by care in operating and in making the sutures. As often as possible the sutures are made in layers muco mucus seromuscular seroserous. The sutures are reduced in a few hours to layer sutures and no septit cavity is interposed between the two planes everomuscular and veroserous.

3 The closing of the duodenal stump by invagination is superior to any other form of closure.

4 The use of the three branch clamp avoids ill soiling of the operative region and makes possible a careful and very rapid closure of the gastric incision

5 The diaphanoscope while assuring good irrigation of the tissues may be of great service in gastric and intestinal surgery

THE TREATMENT OF GENERAL PERITONITIS

BY GEORGE E. ARMSTRONG MD FACS MONTRE L. CANADA

THE treatment of peritonitis involving the pelvic and small intestine area is extremely sample. The operating sur geon only needs courage. I do not mean the kind of courage seen on the brittlefield not the courage of heroic retirity but the courage to stay his hand.

The ancillary sciences have pointed out the

have taught us that bactern produce a poison that is fatal to themselves. A simple illustration is an abcess containing sterile pus

can be destroyed only by the towns that they
themselves create The manufacture of these

perforated appendix? Obviously by doing

It is here that the surgeon needs courage It is so natural to remove pus from an in fected abdomen. It gives him a feeling of duty faithfully done that the world knoweth not of He goes home at peace with himself

not be his fault

On the other hand to leave an abdomen full of pus odorless or fouls melling requires the courage of a hero. It does not seem right

The justification for doing so is the result Cols of intestine that are manhandled douched and worse yet svabbed with gauze are provoked to adhere and mechanical ob

are protoked to adher, and mechanical obstruction is not a rire sequence. If the coils are not disturbed adhesions will not form and there will be no mechanical obstruction. Let the technique then be to deal with the cause of the infection as gently as possible PISSA a small soft pubber tube or an accordion

Let the technique then be to deal with the cause of the infection as gently as pos tole. Pass a small soft rubber tube or an accordion dram nearly but not quite to the bottom of the pelvis (gan a should not be used) place the patient in the Fouler po ittin and give saline per rectum or intra enously il necessary and withhold fool until the bowl move. The tube is not for dramage but to allow enough fluids to escape to relieve the units.

a friend Indeed some meticulous surgeons spend some time in carefully spins, the coils of intestine and the pelvic cavity with gauze to ensure against the leaving of one drop of his saving torus loaded fluid in the abdom inal cavity.

instituted before paralytic obstruction ha

Those who have courage to carry out this treatment will have no mortality in general personatis

OPERATIVE TREATMENT OF ULCERS OF BODY OF THE STOMACH

BY I I WALTON US FRCS LONDON PAGEAND

OME eleven years ago when I was first appointed surgeon to my hospital I was asked to travel abroad to enlarge my surgical knowledge. I at once selected the

ize how very greatly I appreciate the honor of being asked to read a paper at this the most representative meeting of all that is best in surgery not only of the United States but of the civilized world I have honever been in great difficulty in the choice of a subject for I could not hope to bring before you any thing that was new to you I have therefore chosen a subject which still presents to me consider and bed difficulty in the hope that I may stimu late discussion and thereby obtain rather than import howledge.

The treatment of ulcers of the body of the stomach is such a subject for even today there is no branch of gastric surgery in which so many different views are held and so many operations and the surgery of the surger

theory and the practical results upon which these conclusions are based

It will however be necessary before put ting before you and analy ang the results of my own experience to briefly discuss the different forms of treatment which yet at present advocated I rom the point of view of treat ment these ulcers may be considered in two main groups. In the first are those examples which are low down on the lesser curve or on

is scated far up on the lesser curve often in

this latter group fortunately not very com mon the ulcer is so maccessible that any form of surgical treatment is associated with considerable difficulty. Hence somewhat different lines of treatment will be applicable to the two groups

> ULCERS IN THE CENTER OF THE LESSER CURVE

The following methods of treatment have from time to time been carried out in the treatment of this variety of ulcer

I Gastro enterosiomy (Fig 3) Although this

with obstruction it is becoming generally recognized that it is insufficient as a sole means of treatment for an ulcer on the lesser curve. This is more especially the case if the ulcer in this situation has spread through the walls of the stomach and has become adherent to the pancreas or other surrounding struc tures Cunning (1) reported a series of cases of adherent ulcers which had persisted in spite of a simple gastro enterostomy Mayo Deansley (5) and Lord Dawson (4) have among many others laid stress upon this fact Deansley and Dobson (6) go further and state that in all cases in which the ulcer is situated remote from the pylorus unsatisfac tory results will follow the use of a simple gastro enterostomy

M) own experience is very definite and conviousing In my earlier series in which these facts were not realized there were a cases in which a simple gratto enterostomy was performed. Of these there were 4 recurrences a recurrence rite of slightly over 13 7 per cent. In larger series that have been reported the rate has been even higher than this Deansley placing it at 33 per cent. In addition however to these recurrences occurring in patients upon whom I had per formed the simple gastro-enterostomy the were 4 patients who had had a gastro enter



I is a Grop A. Ule is not content to I were e

ostomy performed elsewhere and had then sought my advice for a persistence of their symptoms. A further operation had re-ealed the lact that the ulcer was still present in the lesser curve. My experience therefore of ulcers in this situation persisting after gastro enterostomy; is based on 8 cases.

Of even greater interest than these is a group of 8 cases which I have persously re ported where a gastro-enterostomy had been performed elsewhere not for a lee or curve but for a tyloric ulcer and although the original ulcer had healed a fresh lesson had developed along the lesser curve. In these cases the gastro enterostomy had even failed

Fighths in even greater objection to sample gastro-enterostomy 1 that the ulter if left untouched may become carenomatous. The question of the relationship between these two conditions has again become controlersal many recent observers beheving that only

ago. My own cases show cyndence or past

Whatever is the exact figure there i un questionably a definite relationship and Bal four (1) has shown that in 40 per cent of the cases that die after recovery from an operation for



Fg : Gr pB Uleshghupa the be cu Us lly rylarge nd adhere t.

gastine ulcer the death is due to the onset of carcinoma. It is true that of his cases 40 out of 75 were those in which there was a large hard indurated ulcer high up, and those there fore would not be placed in this group in which the ulcer is small and low down. Neverthe less in my own series of 9 cases treated by simple gastio enterostomy one developed carcinoma at the end of 2; pars and there have

apparently a simple ulcer was seen but a partial gastrectomy as a preformed and a microscopic examination revealed the presence of early carenoma. Simple gastro enter ostomy must therefore be regarded as an sufficient measure for the treatment of ulcers in this situation.

2 Excession of ulcers In 1831 Rydyger first introduced excission of an ulcer of the stomach as a means of cure. This operation has frequently been performed since and at one time was largely advocated by Deansley (2) in England.

"The essential aim was local destruction of the ulter and since this time many other methods having the same aim have been in reduced. The following operations are now recognized (1) wedge resection (Fig. 4) (2) transgastire resection (Fig. 5) (3) stitch escion (Fig. 6) (4) cautery excision (Fig. 7) (c) sleeve resection (Fig. 8)



 Γg 3 Sumpl gastro-ent rostomy Γg 4 W db, a toon f claser P . Tran gastro-resection f g str f r1 sercury letts cur e will rs.

Wedge resection is a procedure which requires a considerable amount of practice before it can be safely performed but when once the technique has been mastered the results are very satisfactory and the mortality is very low. The case of the operation will depend upon the size the position and the extent of the dihesions of the ulcer.

The lesser see having been opened through the gastrocole omentum the uleer is examined from the posterior aspeet and openings then made through the gastroleptic omentum on the proximal ind distal sides of the uleer. The stomach is clamped on either side one blade of each clamp passing through the lesser sac (Fig. 9). The coronity and pyloric arteries are tied close to the clamps and divided a wedge of stomach containing the uleer is exer.

no difficulty in turning up the posterior and indicently to uncert the second cular layer. Should the ulcer be adherent to the pancreus it! epitated after the clamps arphied. The may leave a farge opening in the

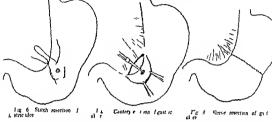
the

tomach and the ba e of the ulcer may have to be haved off the pancress. The resulting riw area is covered with peritoneum before the stomach; sutured

At one time Mayo introduced a modifica tion by opening the stomach anteriorly and excising the uleer through the opening thus made the posterior opening being then su tured the anterior wound of the stomach was closed To this operation he gave the name of transgastric resection Draper and Mc Carty (7) believed that a somewhat similar process of removal could be safely and more simply brought about by inserting a sur rounding autolytic stitch which would lead to destruction of that portion of the stomach within its grasp. However as nearly all these ulcers are situated on the posterior surface of the stomach or on the lesser curve at the at tachment of the lesser omentum it was fre quently a very difficult matter adequately to surround the ulcerated area by such a stitch

It i quite probable that the good results which so often follow the teatment of a per forated gastric ulcer on the anterior surface of the stomach by the in ertion of purse string sutures and the performance of a posterior gastro-enterosiomy are due to the fact that the suture which is used as a means of closure acts after the manner of an autoly in the ball in the string surface.

tained by the treatment of ulcers of the body by simple gastro-enterostomy



Ballour has devised an operation which in my cross make; the technique very much simpler and thus has had a very wide vogue. He destroys the center of the ulter with the actual cautor; and closes the opening, which is thus left. He maintains that not only does the cautery completely destroy the ulterated actual but that the effects of the heat are widespread but that the effects of the heat are widespread and destroy only surrounding diseased are:

Of late there has been as a result of certain phy tological experiments a tradency to replace the resection of a nedge containing the ulcer by the removal of a complete annular segment of the stornach Chumps are as in the case of a wedge resection applied on either the office of the ulcer and the complete ring of stomach between them is excised the ends of the viscus are then united by sutture. This

My own experience which is based upon a series of careful observations of the 'x ray appearances after wedge resection does not support the view that such an operation is followed by an impairment of the mobility hence there seems to be no indication for replacing the relatively simple procedure by the longer and more difficult sleeve resection.

Judd and Lyons (13) obtained good results in a series of 90 cases 70 being cured al

a x edgs, re ection gave rise to a greater impairment of motility of the stomach than did x sleeve re ection the former operation having a tendency to be followed by distation and a decrease of the muscular contractions. Pannett (16) clums that a complete divi ion of the nerve fibers remose she inhibitory in fluences and has even gone so far as to advise an operation consisting of a circular incision right round the stomach through the muscular coats only and in this way is similar to the effect brought about by a sleeve resection believe that it dangers have been evaggerated Balfour (i) in his valuable studies on car cunom's following gastric user found in acress of 5c cess heated by this method no case of later carcinoma while with all other methods there was a definite percentage morthly due to this cau e. A possible exploration of these figures may be however that the sleeve resection was mainly performed for hour glass constriction—a condition which very rarely be omes carcinomatous

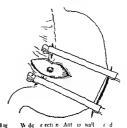
These variou methods of local excision of the ulcer fell into very considerable disrepute for it was found that if the ulcer had been



ing 9 \ dager sect in Apple t not clamp

excised there was a tendency for a new ulcer to form This was indeed only to be expected for if there were certain conditions in the stomach which would lead to the formation of an ulcer in the normal viscus, how much more likely was it that they would lead to ulcera tion of traumatized areas such as are left after any form of resection Poor results from these methods alone have been reported by many surgrons and it may be now accepted that if no tens are taken to prevent the recur rence of ulceration the results are almost cer tam to be bad Balfour found that such methods alone were only followed by 57 per cent of cures and Sherren has reported that of a cases 1 died and only 2 remained well My own experience has been very simi for It would be expected however that if the operation of local destruction or removal were combined with some step which would overcome the tendency for ulcer formation then the results would be very satisfactory Such a result is obtained by combining with the resection a gistro enterestomy

It is my own custom to perform this operation on the posterior surface the opening being so placed that it less transversely half of it being proximal to the line of suture following the resection while half is di tal. This means



chuncal results are so satisfactory. Of the various methods of excision which should be combined with a gastro enterostomy my own preference is strongly in favor of a wedge resection as a routine form of treatment. This operation is relatively easy to carry out.

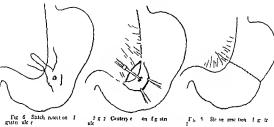
a gr t about by can be easy to no can be so planned that the whole of the diseased area can be removed leaving soft phable walls to be approximated.

Theoretically one of the grave objections to a leeve resection is that it cannot adequate ly be combined with a gastro enterostomy. The line of suture is so placed that a gastro



Fig a Med resection E eas mpl ted

zation of the stomach contents and that the



Balfour has devised an operation which in many exess makes the technique very much simpler and thus has had a very wide logge. He destroys the center of the ulcer with the actual cauter, and closes the opening which thus left. He maintains that not only does the cautery completely destroy the ulcerated area but that the effects of the heat are widespread and destroy any surrounding diseased area.

Of the there has been as a result of certain physiological experiments a tendency to replace the resection of a wedge containing the ulcer by the removal of a complete annular segment of the stomach. Clamps are as in the case of a wedge resection applied on either side of the ulcer and the complete ring of stomach between them is excised the ends of the va cus are then united by suttre. Thus My own experience which is based upon a saries of careful observations of the Nray appearance after wedge resection does not support the view that such an operation is followed by an impairment of the motilaty hence there seems to be no indication for replacing this relatively simple procedure by

the longer and more difficult sleeve resection Judd and Lyons (13) obtained good results in a series of 90 cases 70 being cured al though pointing out that sleeve resection has theoretically the following objections (a) it is more difficult than wedge resection (b) it shortens the lesser curve (c) it removes too much normal stomach and (d) an hour plass constitution may follow Subsequent Lyongham (d) when the lesser curve (b) the constitution may follow Subsequent Lyongham (d) and the longham (d) and the longham (d) and the longham (d) and (d) and hour plass constitution may follow Subsequent Lyongham (d) and (d) a

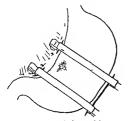
a wedge resection gave rise to a greater in pairment of motility of the stomach than did a sleese re ection the former operation has ing a tendency to be followed by dilatation and

Pa of

fluences and has even gone so far 15 to advi e an operation consisting of a circular incision right round the stomach through the musular coats only and in this way is similar to the effect brought about by a sleeve resection believe that its dangers have been evaggerated

Ballour (1) in his valuable studies on car curoma following gastire ulcer found in a series of 56 cases healed by this method rocase of later carenoma while with all other method there was a definite percentage mor taltry due to this cause. A possible explanation of the e figures may be hovever that the sleeve resection was mainly performed for hour glas constriction—a cindition which very rarely becomes carenomatous.

These various methods of local excision of the ulcer fell into very considerable disrepute for it was found that if the ulcer had been

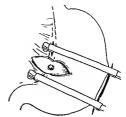


fg , \\ is, set \ppleat n fel mp

excised there was a tendency for a new ulcer to form This was indeed only to be expected for if there were certain conditions in the stomach which would lead to the formation of an ulcer in the normal viscus how much more likely was it that they would lead to ulcera tion of traumatized areas such as are left after any form of resection. Poor results from these methods alone have been reported by many surgeons and it may be now accepted that if no steps are taken to prevent the recur rence of ulceration the results are almost certain to be bad Balfour found that such methods alone were only followed by 57 per cent of cures and Sherren has reported that of 9 cases 1 died and only well My own experience has been very sums It would be expected however that if the operation of local destruction or removal were combined with some step which would overcome the tendency for ulcer formation then the re ults would be very satisfactory Such a result is obtained by combining with the re ection a gastro enterostoms

It is my own custom to perform this operation on the posterior surface the opening being

that the gastro-enterostomy opening is placed relatively high up and it is probably for this reason that there is such a definite neutralization of the stomach contents and that the



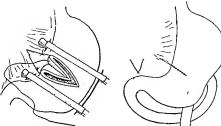
Fg o W dg section 1 t walleste d

chinical results are so satisfactory. Of the various methods of excision which should be combined with a gastro enterostiony my own preference is strongly in favor of a wedge resection as a routine form of treatment. This operation is relatively easy to carry out a good approximation can be brought about by the line of suture all humorrhage can be easily controlled and the line of excision can be so planned that the whole of the discassed area can be removed leaving soft pliable walls to be approximated.

Theoretically one of the grave objections to a sleeve resection is that it cannot adequate by be combined with a gastro enterostomy. The line of suture is so placed that a gastro



Ig : Wed resect Lx = completed



Fg Weder sect I retthet o dg fth pot t will f the st m ch and th n thos f the t walls u ted ca h with t oly re of c tgut

Fg 3 C mpl te peratin W dg t Tem
Po y 1 f pyloru P trir t s rs g t

enterostomy either cannot be made proximal to the suture or would have to he very high up on the fundus of the stomach whereas if placed distal to it it is probable that its effects would not be very beneficial

The stitch operation as a routine form of treatment is generally unsatisfactory and difficult to carry out although as I have pointed out it probably has very beneficial effects with a perforted ulcer which is nearly always situated antenorly.

The crutery resection of Balfour I do not advocate as a routine form of treatment for my own belief—which I must admit is very largely theoretical—is that it does not give so complete and wide a removal of di eased tissue as does a wedge resection and morrower is likely to leave a larger area of destrowed tis ue which must be removed by a process of utceration. In certain cross however where the ulcer is situated on the posterior surface and is easily accessible through the gastro cohe omentum this method of Balfour i admirable and is most simple to carry out. I have used it in several such cases and there sults have been in every way satisfactory.

The transgastric resection is hardly ever necessary and suffers from the drawback that the line of suture cannot be so adequately

carried out and indeed has to be limited to one layer of suture material Mayo himself has recognized this difficulty. It has therefore become my custom as a routine form of treat ment to perform a wedge resection which is combined with a posterior gastro-enterostomy Since all the di eased tissue has been removed it is probable that there will no longer be any pylone spasm and hence there may not be complete diversion of the stomach contents through the stoma For this reason the py lorus is occluded but it is recognized that such an occlusion need only be of a temporary nature and it is therefore carried out by means of a running mattress suture of silk which later allows the pylorus to open My own observations carried out in a follow up department by means of \ rays show that the pylorus as a rule begins to open between the second and third month

In my own practice I have had 244 cases of ulecr of the body of the stomach. A wedge resection combined with temporary pyloric many combined with temporary pyloric hardward of the stomach control of the stomach carried out in 135 cases of simple ulecr low down on the lesser curre in 8 cases where an ulecr had developed after a gastroenterostomy performed elsewhere and in 15 cases which were complicated by hour glass

therefore appear to be important in comparing the relative values of different forms of opera tion to consider the hour glass cuses in a group ara (Table I)

The mortality of the combined operation should be very low for the amount of operative shock is light and as a general rule the pulse is increa ed little if at all. In my series of 141 simple cases there were 3 operative deaths (If these ; I was a man of o who died from cardiac failure and another wa a patient who developed an ab cess of lung which led to his death nearly 4 weeks later and one would hope therefore that in future even this mort ility should be reduced. These figures give a percentage mortality of very slightly over In the hour gla sea es where the patient 1 generally 1 fruit noman who ha long uffered from pto is and has been much

were treated in this manner the base of the resected wedge being made pecially wide so that when the stomach was sutured the nar rowing was overcome. Of this group a died is

the result of operative interference giving a mortauty of 10 5 Der cert

It is however of the late results of the simple cases treated by the method that I specially wish to speak Since 1919 I have had a well equipped follow up department and have been able to trace my cases in a most satisfactors manner I may say here that I believe that it is essential for any up to date urgical unit to have such a department for unless one keeps in close contact with the patients it is probable that a much too or a mistic view will be taken of the results of treatment and operative measures will be continued which are in reality unsatisfactory I had not the benefit of this department for the cases operated upon before 1919 and there fore a good many of this group have been lost sight of or have only been traced for a relative ly short period Thus it is that of the 143 cases late reports have been obtained of only 117 Of this group however on are abso lutely well They perform a full day's work live a normal life and have a full diet. They complain of no symptoms of any cort further & cases complain of occasional slight flatulence or discomfort for which they take a little alkalı With this they ilso are able to hie a full and complete life Hence to, or 91 per cent have been converted from unfit to fit members of the state

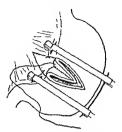
Of the remainder r has had a true recur rence at the site of the excision. Why in this ca e there should have been such a recurrence

set of carcinoma was proved for later a par tial gastrectomy was performed and no sign of carcinoma could be found microscopically One case developed careinoma at the site of

the con Th that the

not

cut mence it is not possible to say that the car inoma was not pre ent at the time of the pret operation It probably was for the con dition a year after operation was definitely caremornatous One has developed careinoma at the pylorus quite apart from the site of the



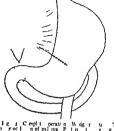
I a se Wed e resects n I not that edges I th posinr il I the si me had thin the fish at r wall reu ted ea hwith in lyers featgut

enterostomy either cannot be made provimal to the suture or would have to be very high up on the fundus of the stomach whereas if placed distal to it it is probable that its effects would not be very beneficial

The stitch operation as a routine form of treatment is generally unsatisfactory and difficult to carry out although as I have pointed out it probably has very beneficial effects with a perforated ulder which is nearly always situated interiorly.

The cautery resection of Ballour I do not advanct as a routine form of treatment for my own beheft—which I must admit is very largely theoretical—is that it does not give so complete and wide a removal of diseased tissue as does a wedge resection and moreour is likely to leave a larger area of destroyed tissue which must be removed by a process of utceration. In certain cases however where the ulter is situated on the posterior surface and is easily accessible through the gastro colic omentum this method of Ballour is admirable and is nost simple to carry out. I have used it in several such cases and the results have been in every way sati factory.

The transgastric resection is hardly ever necessary and suffers from the drawback that the line of suture cannot be so adequately



nt ot my

carried out and indeed has to be limited to
one layer of suture material. Wa o hm (

a posterior gastro enterostomy. Since all the diseased it sue has been removed it is probable that there will no longer be any plotte spasm and hence there may not be complete diversion of the stomach contents through the stoma. For this reason the pylorus is occluded but it is reconnered the

i after allows the pylorus to open. My own ob ervitions carried out in a follow up department by means of X rays show that

sesetion combined with temporary poloric occlusion and a posterior gastro-enterostomy has been carried out in 135 cases of simple ulcur low down on the lesser cure in 8 cases where an ulcer had developed after a gastro-enterostomy performed elsewhere and in 10 cases which were complicated by hour glas

jejunal ulcer following and that the risk of the onset of carcinoma is very much diminished. The first claim is incorrect. All surgeons are

ated at the pylorus or duodenum an ulcer at the junction may occur after a partral gastrectomy as well as after a gastro enter ostomy. I have had to operate for 2 such cases where a partial gastrectomy had been performed clsenhere and similar cases lawe been reported by Beer (2) H Haberer(9) Hoquet and Cole (11) and Wright(19). Von

and Pólya operations

The possibility of carcinoma after the more local methods of removal must be inquired

tion should be much less when the ulcer is removed by wedge resection than after a sim ple gastro enterostomy and it would seem un halfy that carcinoma would arise after the wound had completely healed Balfour (1) has shown that 40 out of 76 cases that later became carcinomatous showed this change within two years of the operation and were thus probably already carcinomatous when the operation was undertaken Sherren (17) also reports 5 cases of carcinoma following a gastro enterostomy in which the time of onset of carcinoma varied from 1/2 to 18 months after the operation. In my complete series of cases there have only been a cases of late carcinomatous change at the seat of the ulcer Inon of h

be an alteration in the nature of the symp toms. The periodicity may be lost the pain may become less severe but more continuous the appetite may begin to fail and somiting may ceale to give relief. Under such circum

stances a partial gastrectomy should be per formed even if the ulcer appears to the naked eye to be quite free from growth. I have already mentioned that in 6 of my own cases carcinoma was found under such conditions. My own view, therefore is that the danger of the late onset of carcinoma is very slight if care be taken over the diagnosis, and is not sufficient to wirrant the routine performance of partial gastrectomy. For ulcers easily accessible on the lesser curve local removal with gastro enterostomy should be the operation of choice. If there is the slightest sus piction of carcinoma partial gastrectomy should be performed.

IARGE ULCERS HIGH UP ON THE LESSER CUPVE

Cases are seen from time to time in which the ulcer is situated so high up on the lesser curve that it nearly or sometime indeed actually involves the cardiac opening. These ulcers probably give relatively late symptoms and thus it is that they are often found to be extremely large and adherent to the posterior abdominal wall. Owing to their size and to their adherence they are often very difficult to deal with surgically and in fact it would be in many cases quite impossible to excess them locally. The freer access which is given by a partial gastrectomy will often allow of their removal but it frequently happens that when the operation has been started it is found that

comes a very doubtful question whether it is justifiable. Not is the argument sound that many of these ulcers are carcinomatous and that the only po sible chance of a cure is by performing a complete gastrectomy for if in ulcer so ituated and so extensive in size alrendy carcinomatous it is almost certurally too far advanced to allow of a radical cute. In such circumstances it is a very difficult matter to decide what is the best opera two procedures.

Many surgeons (and at one time I was among them) are in the habit of performing partril gastrectomy for no other procedure seems at first sight likely to hold out any ulcer on the lesser curve Two patients have died since operation r from a lung condition which probably owed its inception to the anast thetic. In accordance with the usual experience with this variety of ulcer there has been no example of a subsequent gastrojeumal ulcer. 3 Partial gastreclamy It is becoming more and more the custom to treat ulcers of the

the mortality can be and has been reduced to 3 per cent or under by surgeons specially practicing this branch of surgery will be admitted but if the operation is performed as a routine measure for these smaller ulcers low down on the le ser curve I am convinced that except perhaps in the hands of one or two surreons the mortality will be very much higher than if more local steps are practiced The actual figures are extremely difficult to compare for on the one hand a partial gas trectomy is unquestionably possible in some advanced cases of ulceration where any form of local excision would be quite out of the question but even if these cases shich are bound to be associated with a high mortal ity are eleminated the figures will still be confused for if a surgeon performs a partial gastrectomy as a routine step he will include in this group all the smaller ulcers and his figures will show a low mortality whereas a urgeon who practices local resection will re serve the partial gastrectomy for the more advanced cases and hence the operation in his hands will appear to be dangerous Mayo (14) has shown that the mortality can be re duced to 3 per cent or under and similar satisfactory figures have been reported by Sir Berkeley Moynihan Other surgeons who like myself use the partial sustrectomy o ly for the more difficult varieties or for

different methods are used is well shown by the statistics of Finsterer (8) who in his last

apparently only used for advanced cases was

It must be remembered here that the very fow mortality which is obtained by these salled surgeons is in one way likely to be harmful to surgery for amateur surgeons who perform major operation once or twice a year are in the habit of quoting them to their pattents who thus believe that these results can be obtained by any surgeon however small his knowledge and experience

ability but nevertheless a partial gastrectomy for a small ulcer a centuneter or less in diameter high up on the lesser curve or for an hour glass stomach with a relatively wide

operation is much too radical and that it is innecessity to saterfice so large a portion of healthystomach. In this feeling I amevidently not alone for Dr. W. J. Mayo. (13) has also drawn attention to the danger of the more general introduction of so radical an operation because some 6 per cent of cases of doudenal ulcer and some 10 per cent of gastra ulcers are not relieved by gastro-enterostomy. Hurst

lesion has a higher mora, and

The variation in the figures of the operative results according to the cases for which the he ne spond opera gastro-

į

THE RELATION OF THE SPILIN TO CERTAIN CHRONIC PURPURASI

By WILLIAM I MAYO MD FACS ROCKESTER MINNESOTA

ROM the obscure symptomatic pur puras a climical entity has timerged which in the typical case is sufficiently definite to take the name of essential throm bocy topenic purpura after its most important characteristic. Newed in perspective it forms a satisfactory picture. Fxamined in detail, the picture faces and the condition shades back into the obscurity from which it sprang.

Thrombocy topenic purpura has five distinguishing characteristics (1) chromic herm orthagic purpura (2) deficiency of blood platelets (3) greatly prolonged blending time (4) non retractile blood clots and (5) usually enlargement of the spleen

It is my purpose to evaluate briefly these criteria as well as I may in the light of our

purpuras generally

HATMORRH (GIC PURPURA

Hemorrhagic pupura is a visible sign of a blood dysersia. Remissions often occur in the purpuras and the history is therefore very important. If because the patient is een during a remission the dignosis is doubtful the application of a fourniquet (capillary resistance test) to the arm for 3 minutes with just enough pressure to obstruct venous return but not to interfere with arternal circulation will usually produce typical petechia.

Attempts have been made at sancus traces to make entitle of certain symptomatic purpurar such as the so called rheumatic purpura of Schoullein and Henoch spurpurs but the foundation in fact is too sender to justify an eponym. In the occasional case of purpura of this type the symptoms are distinctive. I have a shades of shades of shades of the symptoms are distinctive.

l urnur

of many or eases such as chronic nephratis

R distinctibe themes + 1.

earthosis of the liver permicious anæmia and the chromic aplastic anæmias the leukamias timiors of the bone marrow and some cases of splenic anæmia. Poisoning by certain chemicals benzol for example is marked by the development of definite purpura.

Acute purpura is seen in connection with certain exanthemata notably scarlet fever and hamorrhagic (black) smallpox. One of the most distinctive of the acute purpuras occurs in the acute aplastic anaemias which usually affect persons between 15 and 30 years of age and sometimes run their entire course to a fatal ending in from 1 to 6 weeks. In the acute leukemias purpura is frequently observed.

It will be seen therefore that the names given to the purpuras are merely convenient pegs on which a miscellaneous assortment of conditions more or less resembling each other are hung. From time to time these syndromes are shifted from one peg to another

cases we frequently have no method of demonstrating disease characteristics in the blood

DEFICIENCY OF BLOOD PLATELETS

The red blood cell is formed in the bone marrow. It has no nucleus and therefore has no power of r. a. th. of t.

carne

In

z l Ameria

platelet in 1906 Winght showed that the blood platelet was formed by the megalario extes of the hone marrow. Certain observers have been inclined to consider the blood platelet an alteration of the red blood cell rather than a coursin. Leddingham in 1914 and later Benson dumon trated that the blood platel is are an independent element in the blood and further study has shown

Washing My 4 5 9 5

chance of success_Sir Berkeley Moynihan has

to give that portion of the stomach a complete rest. To my mind there are very definite objections to this operation. The patient

ill food has to be ingested through an abdom inal tube can hardly be described as worth living The ulcer is quite inaccessible for cautery stitch or wedge resection and a partial or complete gastrectomy has a very high mortality. With this latter operation there is the danger that as the surgeon's Lill improves he will attempt more and more difficult cases but he will find in the course of time that the mortality is n ing and he will have to halt. This has been my own ex perience an experience which I believe I share with many surgeons. I have found that a partial gastrectomy which in the pa t I reserved for those

enes a I believe that the most satisfactory results in such cases will be obtained by simply per forming a nosterior Lastro enterostomy as high up as possible at the first operation Such a procedure will in these high ulcers give a certain percentage usually e timated at about 40 per cent of complete cures In ome of the remainder the patient will ex perience complete relief for a period of about year or 18 months He then will have a re turn of his symptoms. If a second operation now carried out the ulcer will be found to be much smaller and a local excision either with a knife or the cautery will be found possible I have had in my own series a group it has been found that the patient is suffering from nooperable carcinoma. It is almost cer tun however that if a partial gastrectomy had been carried out at the first operation

considerable difficulty for the surgeon to judge when to perform a partial gastrectomy and when only to undertake a simple gastro enterostomy for it is the ulcer be non malignant it as not justifiable to subject the patient to an undue risk. On the other hand if it is not justified by the malignant the gastrectiony should only be undertaken if there appears to be 1 good possibility of complete removal

REFERENCES

number of such cases where the first operat o has been performed and the patient has been left with the idea of carrying out some more radical step at a second operation the condition has progressed and at a later period

THE RELATION OF THE SPLEIN TO CERTAIN CHRONIC PURPURASI

BY WILLIAM I MANO MD FACS ROCHESTER MI MESOTA

ROM the obscure symptomatic pur puras a chinical entity has emerged which in the typical case is sufficiently definite to take the name of essential throm bocytopenic purpura after its most important characteristic. Viewed in perspective it forms a satisfactory picture. Examined in detail the picture fades and the condition shades back into the obscurity from which it synang.

Thromboty topense purpura has five distingui hing characteristics (r) chronic hæm orthagic purpura (2) deficiency of blood platelets (3) greatly prolonged bleeding, time (4) non retractile blood clots and (5) usually enlargement of the spicen

It is my purpose to evaluate briefly these criteria as well as I may in the light of our

purpuras gener illy

HÆMORRHAGIC PURPURA

Hemorrhagic pupura is a visible sign of a blood dyserasia Remis ions often ocult in the purpuras and the history is therefore very important. If because the patient is seen during a remission the diagnosis is doubtful the application of a tourniquet (capillary resistance test) to the arm for 3 manutes with just enough pressure to ob truct renous return but not to interfere with at terial circulation will usually produce typical petechize.

Attempts have been made at vanous times to make entities of certain symptomatic purpuras such as the so called rheumatic purpuras of Schoenlein and Henoch spurpura to the foundation in fact is too slender to justify an eponym. In the occasional cast of purpura of this type the symptoms are distinctive but in most instances the syndrome shades off into other purpura conditions.

I arpura may be seen in the terminal stages of many diseases such as chronic nephritis

cirrhosis of the liver pernicious anæmia and the chronic aplastic anæmias the leukæmias timoris of the bone marrow and some cases of splenic anæmia Poisoning by certain chemical benzol for example is marked by the development of definite purpura

Acute purpura is seen in connection with certain exanthemata notably scarlet fever and harmorrhagic (black) smallpov. One of the most distinctive of the acute purpuras occurs in the acute aplastic anatmas which usually affect persons between 15 and 30 years of age and sometimes run their entire course to a fatal ending in from 3 to 6 weeks. In the acute leukæmi is purpura is frequently observed.

It will be seen therefore that the names given to the purpuras are merely convenient pegs on which a miscellaneous assortment of conditions more or less resembling each other are hung. From time to time these

a blood dyscrasia actually exists in all of these cases we frequently have no method of demonstrating disease characteristics in the blood

DEFICIENCY OF BLOOD PLATELETS

The rid blood cell is formed in the bone marrow. It has no nucleus and therefore has

matter than a country of the straight of the s

chance of success Sir Berkeley Moynthur has recognized the difficulties which are associated with this type and has advocated a iciunos tomy which is kept open for a long period so as to give that portion of the stomach a complete To my mind there are very definite objections to this operation. The patient during the whole period during which the je junostomy is acting-ind it may be neces ary to keep thus open for 2 years-is more or less a complete invalid and a life during which all food has to be ingested through an abdom inal tube can hardly he described as worth living The ulcer is quite inaccessible for cautery stitch or nedge resection and a partial or complete gastrectomy has a very high mortality With this latter operation there is the danger that as the surgeon s skill improves he will attempt more and more difficult cases but he will find in the cour e of time that the mortality i rising and he will have to halt. This has been my own experience an experience which I believe I share with many surgeons. I have found that a partial gastrectomy which in the past I reserved for these large and difficult ulcers or for those which had evidence of carcinoma gives a mortality approaching 16 per cent

I believe that the most satisfactory results in such cases will be obtained by simply per forming a posterior gistro entero tomy a high up as possible at the first operation Such a procedure will in these high offers a certain percentage usually estimated at about 40 per cent of complete cures. In some of the remainder the patient will experience complete relief for a period of about 2 year or 18 months. He then will have a return of his symptoms. If a second operation is now curried out the ulcer will be found to be much smaller and a local exc ion either with a kind or the cautery will be found to

it has been found that the patient is suffering from inoperable carcinoma. It is almost cer tain bowever that if a partial gastrectomy had been carried out at the first operation even if the patient had survived a recurrence would have taken place with so high and so extensive an ulcer It is a matter of very considerable difficulty for the surgeon to judge when to perform a partial gastrectomy and when only to undertake a simple gastro enterostomy for if the ulcer be non malignant it i not justifiable to subject the patient to an undue rik On the other hand if it is thought to be malignant the gastrectomy should only be undertaken if there appears to be a good possibility of complete removal

REFERENCES

complete cure. It is true that in a certain number of such case where the first operation has been performed and the patient has been left with the idea of carrying out some more radical step at a second operation, the condution has progressed upder alter period and deficient coagulation. While the two symptoms may be found in the same patient they depend on different causes

ENLARGEMENT OF THE SPLEEN

Enlargement of the spleen is frequently found in thrombocy topenic purpura but it is not always easy to detect. The situation of the spleen is such that percussion is dittle value in the diagnosis. The spleen must be at least twice the normal size before it can be felt on palapation during deep inspiration Often the enlarged spleen becomes adherent high under the diaphragm so that it is not greatly affected by respiration and may be three or four times normal size before it can be pilipated beyond the free margin of the risk

The spleen is a lymphoid organ with a relatively large blood supply so that it is ometimes called a harmolymph organ. In health its function is unimportant and its removal causes no disturbance in after his

One of the functions of the spleen is to the function with the function of the spleen is to deliver the function of red cells reduces the amount of oxygen carried to the tissues resulting in the suboudation called anamina. It is not surprising considering the close relationship between the red cells and the blood platelets that the pleen should attack both. That this is the case in thrombocy topenic purpura we know because the platelets in the blood are diminished and the spleenes sinuses, when the spleene is removed for thrombocy topenic purpura will often be found crowded with blood platelets. It he rapid return of the blood platelets.

and is one of the structures which produces lymphocytes. The reticulum cell of the splenic pulp are very similar to those in the lymph nodes and the splenicytes or mono cytes are perhaps the most efficient of all the

bacteria are taken up by the endothelial cells of the liver spleen and bone marrow. Jordan

visualizes the spleen as a vascularized mass of lymphocytes supported by a slightly differentiated mesenchyme called the reticulum which is the mother tissue of the lymphocytes. He divides the lymphocytes into three groups granulocytes monocytes and those which under stress will produce cryth movests.

Carrell in his work on the immortality of tissue speaks of the lymphocyte as the carrier of the necessities of life to the fixed connective tissue cell and points out that repair of injured tissue depends on the lymphocyte

In 1913 Landau and Aschoff proposed that these various types of white cells be differentiated from the leucocy tes and grouped separately and to the body wide tissues which produced them they gave the name of the retuculo endothelial system.

Herning and MicNaughton in their fine study of the lymphatic system referred to the process by which particles insoluble in water such as micro organisms and foreign material are removed from the tissues by phago cytosis that is these particular substances are picked up and carried by diapedies into the lymphatics where they are detoxicated and broken up in the sinuses of the lymphatic plecuses

The enlargement of the lymph nodes is the result of the struggle to destroy or to prevent the advance of bacterial protozoal and can cerous infections into the general circulation through the thoracic duct. The enlargement of the spleen in typhoid fever majaria and syphilis is witness to the attempt to remove disease organisms that have gained entrance to the blood stream. The slowing circulation in the splenic sinuses creates a favorable opportunity for the reticulo-endothelial cells to attack and destroy the intruders products of the strugale are carried to the liver through the portal vein. One of the causes of our frequent mabdity to cure syphili of the nervous system hes in the fact that the central nervous system has no lymphatics The nerve cells are insulated from the blood stream by the neuroglia and when the spirochetæ once enter the nerve cell it is exceedingly difficult often impossible to destroy them

blood

Normally the blood platelets vary between

reduced below 100 000 there is a tendency to the development of purpura and when they consistently number less than 80 000 mani festations of purpura will probably be found When they fall below 10 000 purpura is a prominent symptom. It is probable that in the purpuras there are pathologic changes as

vet unrecognized in the blood platelets as PROLONGED BLEEDING TIMP

well as a deticiency in the number

When marked deficiency of the blood platelets exists prolonged bleeding perhaps up to 1 or 2 hours results from slight injunes Mastication of rough food may cause pro longed bleeding from the mucous surfaces of Menstrual flow in purpure the mouth women may be very greatly aggravated and may not be checked without extreme diffi culty if at all Any type of operation is likely to be followed by serious bozing of blood

In the acute purpuras frequent trans fusions of moderate amounts of blood are the best remedy and if the purpura is dependent on a self limited disease recovery may Im nd trap follow

fusions c causes of

as foci of infection

FORMATION OF THE BLOOD CLOT

In the purpuras the blood congulates but the clot does not undergo normal retraction and exudation of crum There are four important factors in the coagulation of blood (r) thi

PRISTS

form prevents the activation of prothrombin (3) various tissue juices one of which known as thrombopl

neutralizin release of

the formation of the clot and (4) homowen connection between prolonged becoming a

that they are concerned in the clotting of the which is present as a hydrosol in normal

when they disintegrate or during harmorrhage which acts like thromboplastin Coagulation depends as well on the presence and chemical state of calcium in the blood. Although these facts and very many less important ones concerning the mechanism of the excitation and prevention of coagulation are generally accepted with more or less reserve it has been even more difficult to explain the varia tion in retraction of the clot. It is significant however that diminution of platelets is more accurately reflected by variations in retrae

> at elot males

carned by the mother to the male children It may be due to absence of prothrombin or m -m h m as from the blood

tility than it is by any other phase or feature

often shows but few abnormalities on such

blood platelet deficiency In cases of chronic jaundice the bile salts and pigments by uniting with the blood calcium determine a calcium deficiency in the blood plasma which often gives rise to purpuric manifestations Calcium deficiency is remedied by the in travenous introduction of chloride of calcium It has been found experimentally that certain

made from liver tissue by enhancing the

and deficient coagulation. While the two symptoms may be found in the same patient they depend on different causes

ENLARGEMENT OF THE SPLEEN

Enlargement of the spleen is frequently found in thrombocytopenic purpura but it is not always easy to detect. The situation of the spleen is such that percus ion is of little value in the diagnosis. The spleen must be at least twice the normal size before it can be felt on palpation during deep inspiration Often the enlarged spleen becomes adherent high under the diaphragm so that it is not greatly affected by respiration and may be three or four times normal ize before it can be palpated beyond the free margin of the ribs

The spleen is a lymphoid organ with a relatively large blood supply so that it is sometimes called a hamolymith organ. In health its function is unimportant and its removal causes no disturbance in after life

One of the functions of the spicen is to de tray warn out or detenorated red cells Anything which reduces the number of red cells reduce the amount of oxygen carned to the tissues resulting in the suborilation called anamia. It is not surprising con sidering the close relation hip between the red cells and the blood platelets that the spleen should attack both. That this is the case in thrombots topenic purputs we know becau e the platelets in the blood are dinun ished and the splenic sinuses when the splein is removed for thrombocytopenic purpura will often be found crowded with blood platelets. The rapid return of the blood

and is one of the structures which produces lymphocytes The reticulum cells of the splenic pulp are very similar to those in the hmph nodes and the splenocytes or mono c) tes are perhaps the most efficient of all the phagocytes in combating infections

Wy sokowitsch has shown the extraordinary rapidity with which intravenously injected bacteria are taken up by the endothelial cells of the liver spleen and bone marrow Jordan

visualizes the spleen as a vascularized mass of lymphocytes supported by a slightly differentiated mesenchyme called the reticu lum which is the mother tissue of the lym phocytes He divides the hymphocytes into three groups granulocyte monocytes and those which under stress will produce cryth rocy tes

Carrell in his work on the immortality of tusue speaks of the lymphocy te as the carrier of the necessities of life to the fixed connec tive tissue cell and points out that repair of injured tissue depends on the lymphocyte

In 1013 Landau and Aschoff proposed that these various types of white cells be

reticulo endothelial system

Herring and MacNaughton in their fine study of the lymphatic system referred to the pricess by which particles insoluble in water such as micro organisms and foreign ma tenal are removed from the tissues by phago cviosis that is these particular substances are picked up and carned by diapedesis into the lymphatics where they are detoricated and broken up in the sinu es of the lymphatic pleruses of the lymph nodes

The enlargement of the lymph nodes in the result of the struggle to destroy or to prevent the advance of bacterial protozoal and can cerous infections into the general circulation through the thoracic duct. The enlargement of the spleen in typhoid tever malaria and syphiles is vainess to the attempt to remove di ease organisms that have gained entrance to the blood stream. The slowing circulation in the spleme sinuses creates a favorable opportunity for the reticulo-endothelial cells to attack and destroy the intruders. The products of the struggle are carned to the heer through the portal vein. One of the causes of our frequent inability to cure syphilis of the nervous system lies in the fact that the central nervous system has no lymphatics. The nerve cells are insulated from the blood stream by the neurogla and when the spirochætæ once enter the nerve cell it is exceedingly difficult often impossible to destroy them

Unfortunately an enlargement of the spleen even a work hypertrophy increases its ability to destroy red cells. In the presence of splenic enlargement an anamin practically always exists although there may be stages of remission. It is not suggested that splenic enlargement offers, the whole solution of the problem of undue destruction of cretain elements of the blood but the potentialities for ments of the blood his

entiated spieme cells have varied functions that one type of cell attacks the red cells of the blood another the blood platelets and so on Or the spicen may be freed from blume on the assumption that under certain toue conditions the bone marrow is unable to produce normal cell and in the course of the day's work the spicen removes the abnormal cells although they are the hest the bone marrow can produce and are capable of ustaining life. Such in explanation might

also apply to the destruction of blood platelets Differential diagnosis in thrombocytonenic purpura depends on a relative deficiency of the blood platelets. In the purpura of the acute aplastic anamias while the blood platelets are reduced the red cells and the white cells are equally reduced. This is true also in cases of bone marrow tumors and chemical poisoning. In the purpura of leukæmia the red cells and the blood platelets are reduced but the white cells are relatively not reduced and there are also the charac tenstic leukanue changes in the structure of the white cell In the purpura of pernicious anamia the reduction of white cells red cells and blood platelets on the contrary is pro portunate but the change in structure of the red cell is of diagnostic importance

Unfortunately in many suspected cases of thrombocytopenic purpura the igns and symptoms are blurred. It is only recently that the aplastic anamias have been sepa

or peractious anemia Midder grades of hismophila are undoubtedly more common than we have supposed and sometimes can not be differentiated from thrombosytopenic purpura. It is possible that the cases of so called hismophila in the female are in most instances at least examples of thrombosytopenic constances at least examples of thrombosytopenic purpura.

Lizacison in 1916 was the first to suggest splenectomy in cases of thrombocy topenuc purpura hamorrhagica. We have removed the spleen in 10 cases of typical thrombocy topenic purpura with no operative mortality. The condition of some of the patients before operation was extremely noor but by re-

hours the platelet count jumped from under 80 000 in several cases under 40 000 to normal or above. The increase in platelets was not maintained in all cases. Several of the patients before dismissal find bloop platelet counts of under 200 000 but these patients have all remained well. My colleague Doctor Griffin and his associates have reported these cases in detail.

ABSTRACTS OF TWO CASES ILLUSTRATING

Case 1 An anamic man aged 40 v rs came under observation January 2 1925. He had had

me was 35 1 1

Then again there are cases of suspect a thrombocytopenic purpura which cannot be differentiated from chronic apla tic anemia

e plorat n was adv d and was acc pied by the

patient a physician. He was prepared for operation

by blood transfusions On exploration through an epigastric inci ion January 8 1925 the spicen and liver ere lound to be no mal The appendix contained large fæcal c neretions and was removed. There was no ulcer of the stom ch On the anterosuperior wall of the duodenum 2 centimeters below the pylorus was a

centimeters of the supraduodenal e sels were

sufures

The patient was given a translu ion of blood

ŧ

1

gradually recovered and was dismi ed at the end of th sixth yeek in fair health

Here was a case with the clinical charac tensues of hamophilia and the wound com plications of thrombocy topenic purpura with a fairly normal blood picture and a normal spleen

Case 2 A girl ag d 9 years came under observa tion June 4 1024 on ecount of anarma purpurs a d attacks of epi taxis o er 8 year The first

ye r Prolo ged bleed ng t me on slight injury as a pronounced feature Extraction of a tooth cau ed a hæmorrhage I sting 24 hours which as checked

only by tran fus on of blood She had had in fluenza and scarlitina at the age of 5 years The patient was an anamic bedrilden chill

reduc d in weight. There were purpure spot on

140 000 The coagulation time was 5 minutes cal cium time 6 minutes 40 seconds The tourniquet te t v as positive the blood clot did not retract in 12 hours

The nationt was kept under medical treatment in the hospital for two months \n attempt \ as made to get the mouth into better condition and a num ber of transfusions of blood were given. Fibrogen coagulen thromboplastin ep nephrin calcium chloride and so forth were tried but the purpura and tendency to bleeding were not influenced

Surgical intervention seemed justifiable and splenectomy therefore wa performed Augu t 3 to 4 The spleen was enlarged and adherent During the operation hamatomata formed in the d ep ti sues a soon as they were handled which does not ordinarily occur in the typical case of thrombocytopenic purpura The abdominal in coston bled to such an extent that transfusions of blood were given on the operating table. The in cision was most carefully sutured and pressure applied but the bleeding continued and repeated translus ons were given using blood from several donors On one occasion the child was given 3 transfu ions of blood (500 130 and 450 cubic centi meters) in a period of 24 hours. For 4 days death seemed imminent then gradual improvement began the exuded blood clotted with soft non

> ome and

Although the diagnosis of thrombocyto penic purpura was justified in this condition it is to be noted that the blood platelets were not far from normal on repeated estimations and not below what would be expected with a hamoglobin of 30 per cent and a red cell count of 2 500 000 It is also to be noted that after operation the blood platelet count did not materially increase while the child was in the hospital and the prolonged bleed ing time was not reduced. From the fact that she is reported greatly improved it is presumable that the blood at this time would show marked improvement

Unfortunately an enlargement of the spleen even a work hypertrophy increases its ability to destroy red cells. In the presence of splenic enlargement an angemia practically always exists although there may be stages of remussion. It is not suggested that splenic enlar, ement offers the whole solution of the problem of undue destruction of certain ele ments of the blood but the potentialities for evil are increased with hypertrophy what ever the cause of it may be I norking by pothesis might be deduced that these differ entiated splenic cells have varied functions that one type of cell attacks the red cells of the blood another the blood platelets and so on Or the pleen may be freed from blame on the assumption that under certain touc conditions the bone marrow is unable to produce normal cell and in the course of the day a work the spleen removes the ab normal cells although they are the best the bone marrow can produ e and are capable of sustaining life Such an explanation might also apply to the destruction of blood platelets

Difficintial diagnoss in thrombocytopenapurpura dippend on a relative deficiency of the blood platekts. In the purpura of the acute aplistic arrenus while the boost platekts, are reduced the red cells and the white cells are equally reduced. The better also in cases of bone marrow tumors and chemical possioning. In the purpura of leukarmas the red cell, and the blood platekts are reduced but the white cells are relatively not reduced and there are also the charse or reduced and there are also the charse

> permetous s red cells

and blood platelets on the contrary is proportionate but the change in structure of the red cell is of diagnostic importance

Unfortunately in many suspected cases of thrombocy topenic purpura the 1gm and symptoms are blurred. It is only recently that the aplistic anamias have been separations and many

or permetou anamna Milder grades of harnophila vie undoubtedly more common than we have supposed and sometimes can not be differentiated from thrombocy topenic purpura. It is possible that the crees of so called harmophila in the female are in most instances at least examples of thrombocytopenic outpurpura.

Attanction in 1916 was the first to suggest splenectomy in case of thromboextopens upripura harmorthagica. We have removed the spleen in 10 cases of typical thromboes topening purpura with no operative mortality. The condition of some of the patients before operation was extremely poor but by reoperation was extremely poor but by re

hours the plattelt count jumped from under 80 000 in se tral ca es under 40 000 to normal or above. The increase in platel is was not maintained in all cases. Several of the patients before dismissal had blood plattelt counts of under 100 000 but these pritents have all remained well. My colleague Doctor Giffin and his associates have reported these cases in defail

APSTRACTS OF TWO CASES ILLUSTRATING

5 av ng a

Av ng s " h mh He had t brothers

toby nd

slight pr 1 ga vii dicated a mild type of hamophila. Abdom nal expl. at on was advise 1 and was accepted by the

thrombocytopenic purpura which can to a differentiated from chronic aplastic anamia

tradiction in these papers Marine and Man ley found that in very young rabbits spleens could be successfully transplanted into the subcutaneous tissues but they were unable to obtain the same results with older rabbits Lhrenpreis on the other hand found that in

Since for technical reasons it was impossible to present certain pictures in our first publication they are added here

Figure 1 shows a section of a nodule found in the peritoneum 41/2 months after trans plantation of spleen parenchyma. The trans plant is surrounded by a network of fatti tissue The connective tissue capsule (A) of the transplanted spleen has not undergone any changes In places trabeculæ (T) are seen to radiate from the capsule into the splenic ... Duir cell

mag

The pulp (P) in the central portion of the

and in others the chromatin is irregularly clustered together the walls of the vessels scattered through the pulp show hy three deg neration in places This picture corresponds approximately to the first stage of changes in plenic transplants described by Soper in which stage the pulp fir t disintegrates

shows a section of a nodule from the same animal (dig) in which the necro is has made greater progress. The connective ti sue (A) capsule is folded in places trabeculæ (T) of the nodule appear closer to each other becau e of the disappearance of the parenchyma Only along the border areas can one demonstrate even an approximatel, nor mal splenic pulp. In the middle of the trans linton filina

plants recognizable in the nodules of the pre vious figures have here undergone complete di integration This figure shows sufficiently that the transplant 1 markedly shrunken due



Fg 3 F emonths fir t n platti ess event ally lead t d pp ara of tra pla t

to the deterioration of the pulp and in its central portion completely necrosed

Figure 3 which is taken from a dog 2 months after transplantation illustrates those processes which eventually lead to the disap pearance of the transplant. The connective tis ue (A) capsule is represented by a much folded membrane which stains deeply with cosin and is almost completely hyalinized. In place of the pulp a loosely clustered disintegra tion mas (2) containing only occasional nucles is to be seen in the center of the nodule Along the border of the section of the trans plant the residual pulp areas are infiltrated with groups of cells (L) which have at one point broken through the connective tissue cap use The high power shows that these in filtrating groups are composed of leucocytes and newly formed fibroblasts and capillaries and are to be regarded as granulation tissue

In addition to these experiments attempts at spleen transplantation in rats were made and the findings reported recently by Breitner at the surgical congress of 10 3 in Berlin In normal animals splenic transplant were found to cause an increased accumulation of fat in the body and more rapid callus formation in fractured bones Atrophy of the implanted portion of spleen was also a regular occurrence

THE PROBLEM OF COMPLETE SPLEEN REGENERATION¹

BY L SCHOENBAUER AND II STLENBERG VIE NA

YN July 1024 the writers? published an experimental study on complete regenera tion of the spleen This study was based upon numerous animal experiments and ob servations over long periods of time up to 8 months. It led us to the conclusion that no regeneration of the pleen occurs in animals after its extirpation. The commonly ac unted statement that such regeneration is possible we explained on the basis of the frequent occurrence of accessory spleens These findings are neither accepted nor rejected by Theodor Koppanyi' in a recent article but on the other hand he regard as erroneous our state ment that small portions of spleen disintegrate when transplanted into the peritoneum of aplenectomized dogs. He uses his own expenments the studies of Ehrenpreis and those of

e con tran planted spleen tissue Accropsy 5 months

later showed absence of splenic tissue in 3 rats and atrophy of the spleen in 2 others. In the 2 remaining animal the transplanted pleen was normal microscopically as well as macro scopically Koppanyi agreed that we proved beyond a doubt the occurrence of accessory spleens in 20 per cent of white rats It appears to us that in his cases the question of ac

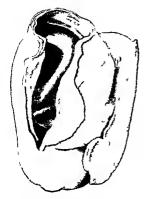
Koppinyi as opposed to our conclusion we cannot refrain from pointing out some con



f pleen pa

From b Embry 1 g 11

Section f colui from same d g h wingg t Cla us

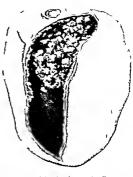


Ig Hylated at fith pill me a f plent man nach hap I fith d pir gens me t ac nt fen dhes s Th I g a t as fill f d ught at

splen was n t n t normal stuation. The uterus as the c times its normal se and myomatous all ex normal. The groth was found to spring from a dit cated splen. It was impossible to move it on account of the firm adhesions. The

The potop ratio core was near Patient was dicharged in a to das with a fisting. If stologic appearance ho ed that the cyteral was un form and core ted of connective issue. Blood wessel

it! Ils hen trubden ist of frundft hop lish chaired a ly with Sudan III. There er no choliterieristal Eximin iton shovel thith lathall remaid dun hanged when placed in water heat dio roo but at ray they broke up



Is Cytof the pleen dutate ll quatence i I mamanaged 6 h ded ip ri a hem r

Hydatid cost of the spleen though generally found in company with similar parasitic cysts elsewhere in the body may exist alone (Gras to Martin 18, Dieulafor 5)

The cysts may begin in the body of the or ean which expands to form a sort of capsule for them they may begin in the pemphery and the spleen then appears as a mass adherent to the cast wall with which it is in some degree incorporated they may begin in the capsule of the spleen or outside it and remain attached to the spleen by a pedicle which is broad or nar row The cysts therefore may be described as central peripheral and juxtasplenic. The pleen may be hypertrophied or it may appear to be reduced in size in consequence of its partial incorporation in the wall of the cyst As the cast increases in size it may enlarge chiefly in an upward direction di placing the diaphragm or even perforating it to gain acces to the lung or to the pleural cavity. Or it may enlarge in a downward direction and occupy the greater part of the abdominal cavity The ascending or immobile and

CYSTS OF THE SPLEEN

BY SE BIRKLIEL WOLVHAN KOMO CR LEEDS I TIND

YYSTS of the spleen may be classified as true and false True cysts po ess a definite specific lining layer epithe hal endothelial or parasitic. I alse cysts are bounded by a zone which const is only of the tissue often condensed or changed in which their cavity is formed

The following table shows the vaneties of these forms

I Ang ectatic

Ang ectatic | In blood results—
(b ing dilata) telangi ctasis
tion of n r | In lymph ves ls—
mal va cular | Ismphang ectasis True { spaces) Lan lothel at hæmangsoma Dermort Parasitic Hedetel

eSerous custo-multiple su

perfi al due to minute

lac rations fthec poul

Hamorrhagic-large and (\cute-inliquativ necro is in infect ons Chrome-tuberculou g negative Secondary liquefaction of

infar ts

TRUL CUSTS

Angieciatic In excellent example of a c) st resulting from the dilatation of p e ext t ing lymph paces is recorded by Suchanek (22) The condition is also recognized by Coenen (3) who arplied the term lymph ingiectasi to the polycystic tumor observed by him in a woman 30 years of age after the birth of her fourth child. The dilatrium of the collected the record of 12 other examples The tumors have sometimes an affinity with sarcoma they are probably due to develop mental error or at least to the same cau e that gives use to the cutineous and subcutaneous angiomata which are so common. When rup

the dream 6 of the rerecorded case and at times the growth clewhere may be larger than that in the spicen In Langhans case (13) the tumor pulsated secondary nodules were found in the liver Splenectomy has been suc ce sfully performed in three ca e

2 The differentiation between the anal ectatic and the neoplastic forms of tumor in volving the blood vascular or lymph vascular tructures is difficult or impossible except perhap in their earliest striges

Dermoid exsis of the spleen are extremely rare So far as I can discover only two ca es are recorded. The first is related by Andral (1) who wrote

The spl en man give ri e to far mor compl ated

The econd is recorded by Kummans from the Institute of Surgical Anatomy and Oper attre Surgery Athens (ee Fowler 2)

The pat at as a woman of 40 year Wh n

in truth a cavernous angioma and vas so recognized by Geipel (8) and by Stamm (21) who attributed it to an embryonic re t Ca ernous angioma has been studied with spe cial care by C N Dowd (6) who has recorded an interesting case in his own practice and has

m

likely especially if formalin has been first injected into the cyst

Removal of the spleen may present difficulties almost as great as those encountered in cases of splenic anamia. This is especially true in the ascending type of tumor when adhesions to the disphragm may be exceeding ly dense. In one of my cases I was compelled to remove a portion of the disphragm with the tumor. Fortunately, it was not difficult to close the gap in the muscle.

and the patient recovered easily and quickly.

Mills (16) in an admirable summary of the subject of hydatid cyst of the spleen in which he gives a list of all cases operated upon since

the year 1900 writes

ii t ta to the outgeons I lound that the majority of the leading surgeons in Argentina and Uruguay and they are all experts in the matter of echinococcosis were by no means wedded to

There are in all according to Mills 56 recorded cases of splenectomy with a mortality of 14 3 per cent. Both my own cases recovered

FALSE CASTS

either duning operations for other diseases or upon the postmortem table. Schmidt (o) who states that 35 or 40 cases were seen; early in the postmortem room at Strasburg attributed the origin of the cysts to the rupture of the spleen capsule followed by a herma of pleme to sue which undergoes degeneration

a recention of the surface of the organ al o Becau c of an injury either direct or increed the ves el in the interior of the pleen are torn

contents or more rarely with pale yellow con tents is formed. Heurtenux (12) records a case of hæmorrhagic cyst containing 10 liters of fluid. (See also Hamilton and Boyer 11 and Lombard and Duboucher 14)

2 Inflammatory cysts A good example of the colliquative process that results in the formation of a large cavity in the interior of the gland is shown in Figure The spleen was softened and the lower end occupied by a cyst containing several ounces of blood stained purulent fluid The cavity walls were limited with shagey altered spleme tissue.

An excellent case of that chrome form of tuberculous disease which leads to the de velopment of a solitary cyst is shown in Figure 3 from the Leeds Museum The pa tient was a man aged 54 with extreme pul

successfully removed is recorded by Peck (18)
Rarely the cysts are multiple

3 Degenerate ecysts Infarcts of the spleen sometimes undergo softening with the result that one or more cysts are found containing turbid serum or altered blood with cholesteria crystals in it. An excellent example of cyst of the release of the cyst of the c

the splenic

operative treatment in cases of splenic cysts of all forms. In a total of 33 cases there were 6 cases of puncture with 2 deaths 9 cases of

no death

REFFRENCES

ADDRAL Péci da t P th 1829 1 432 histor R De t ch Zish r f Ch 90 5 ci 3 3 histor R De t ch Zish r f Ch 90 5 ci 3 3 histor R De t ch 2 histor R De



I'g 3 Tube clu cyt of the play the lifet wills decribed a the remains is lide bereal a in The extense pulm ryfib

the descending or mobile types of cyst are described by Diculatoy. In the former, the lower ribs may be pushed out and the measurement of the left half of the chest then

hemoty, as has been observed constipation has been attributed to the wheson of the cost to the colon. The cost man adher, to the stomach and two cases of perforation into this organ are recorded (Gran Roze in Martin see above). It may burst into the colon and cau e a spirious diarrhoea it may lesk into the general peritoneal cavits or becoming adherent to the skin may discharge its

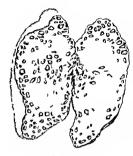


Fig. 4. W to pl tuber ul sat I the ple I om am 1, daughter cysts to the surface. In a few cases

not infrequent. It occurs only in the later stages and its occurrence is an evidence of the latency of a cust which has not declared its

symptoms and physical signs the reaction of Weinberg and the evidence afforded by a radiographic extramation (see Morestin 12). An elon-action of the spleen the separation of the two poles by a central mass. I said to be character into of echinococcus turns in norther of my own cases did I make an accurate direction before operation.

TREATMENT

Tith

jurtaspleme then marsupalization may of them exmethed The adhesions so frequently found around the spleen make the occurrence of general pentoneal contamination very un

effusion becomes organized with germinal connective ti-sue producing a callus which en capsulates the transplant. The transplant th'n decementes its specific cells are not in position to care for its vital metabolism Each transplant needs exceptionally good contact with its bed to secure nourishment and this 15 pos ible only when the bed is free from blood clots and no callus forms from the connective tissue. When bone and joint transplants are separated from their heds by blood or tough encapsulations no judgment can be formed as to the behavior of transplant tissue as such In the cases of Kucttner Borst Luderlen and others one finds in the pathological pecimens just such poor union with the neighboring tissue. In these cases the extensive necrosis of the periosteum the at best incomplete restoration of bone substance the incomplete union with the bone stumps are not to be wondered at Naturally a transplant de cenerates if it is bathed with pus from operative infection

Wy first 2 cases of half and complete joint transplantation were operated on Aovember 3 1907 and were first reported March Soon thereafter on May o 1008 Bauchman reported a cases of bony elbow joint ankalo sis in which the entire metatarsophalankeal joint resected with closed capsule was auto plastically implanted with good results and Judet reported his animal experiments extending from lune 1006 to Viav 1008 in which he tried out and established the be havior of joint ections with and without synovial membrane and of entire joints with and without cap ule transplanted into soft tissue and further the behavior of uncovered joint portions inside of the cap ule which remuned in the repaired defect. This research work was reported on July 6 1906 before the Pari Academy of Science but I had not noticed this (as Judet himself says) hidden reference Later Dastre at se ions on January 27 and March 6 1008 reported these (see Judet's Incaben 1909) knowledge of the results of ludet's animal research would have nece and restrained me from carrying out in men entire joint transplantation without the capsule In 1909 Judet worked out on the cadaver and

published a description of a procedure for the removal of a closed knee joint

From all this it is seen that the idea of joint transplantation was conceived and worked out simultaneously and independently in different places

One may consider reimplantation of joint cartilage as the forerunner of joint transplanta tion This has been undertaken by different surgeons in cases of luxition fractures and separations in Cermany by Franz Koenig in France by Tuffier (1001) Tuffier who also reimplanted in cases of old dislocations the removed joint cartilage (1010) with this so called chondroplastic resection came close to doing actual joint transplantation but he did not undertake the wider step until 1911 when he restored homoplastically with joint por tions from amputated limbs two ankylosed elbon joints after resection The claim of the French literature that Tuffier discovered joint transplantation is therefore not correct

Another forerunner is the ankylosis operation of Weglowski 1907. He inserted plates of rib cartilage by tween the resected surfaces.

of the radius autoplastically implanted the main phalayi of the big toe so that its base completed the new joint. The main interest in his case at that time centered around the behavior of the bon. The transplantation of the joint surface was not emphasized and nothing was reported concerning its behavior

Experimentally the question of tran plant ability of cartilage covered joint portions has been treated in various ways. Though the first work of the kind by Judet is so thorough it still leaves many questions open and takes little cognizance of the demands of practical In conjunction with his animal research Judet contributed later after his operation was made known a procedure for the removal of the knee joint which he worked out on the cadaver. The animal experiments of Judet were concerned es entially with the source of nourishment of the im planted joint cartilage. Isolated removed portions of these were reimplanted into the joint space. The experiments succeeded in

m 1 4 13 LA CHAYS AT I I P th A at 870 l 14 L MBARD a d DrB 16 187 J d h 9: 15 MARTEN The ed loct I 9 % 73 0.2 961

```
MILLS S g Cy e & Ob t o 4 xxx 111 491
More rt. B ll t mem Soc de chi d Ia 909
3 Pr & T So th S g 1.5 9 4 xxxx 349
9 Re c tr D t tr 7 ch 894
2 Schwid A h f p th 1 t g 1 1 5
2 S 4xx los quad d ett n Goeting 8
22 Sterin a 1r h I kln Ch 9
```

JOINT TRANSPLANTATIONS AND ARTHROPLASTY

By Pro ESS R ERICH IFAFR FR mur (But 5) CERM 5 Transl (dbvF 1 II Do b) up the

HIL operations which are necessary to re establish joint function - weight bearing and motion -vary fundamen tally depending upon whether the problem is one of repairing defects of the joint region or of doing away with antilosi foint trans plantation is es untial in repairing joint de fects and further plays a rôle in the treat ment of ankylosis. We classify under the name 'arthroplasty all operations which are designed to establish movement of joints In SURGERY GYNECOLOGY AND OBSTETRICS in 1008 I reported my first cases of joint transplantation and in rote in Yeu York at the International Surgical Congress I took occa ion in my paper on free transplantations to describe my experience with transplants of free layers of fat to sue in joint mobilization In spite of the in the American literature this latter experiment concerning which I re

In both cases the tran plants came from freshly amputated limbs. I named the first operation the half toint transplantation and

another case of severe bons knee joint ankylo

the second the complete

Since over 16 years have gone by dunnwhich I have accumulated considerable expenence by virtue of the large amount of clinical material which has been at my dis posal I hold my ell duty bound to report the end results of these operation -operations which have given good results in animal research We dare not however practice such operations on man without further considera

been entirely overlooked. The I have under stood especially from the works of Kanavel and MacAusland

IOINT TRANSPLANTATIONS

Through clinical research on the value of autoplastic and homoplastic large joint tran plantations I hast concerned the idea in 1007 of repairing by means of a tran plant which included the joint surface of the tibia an operative defect of the tibia which extended into the knee joint. At the same time in

to care for the research ammal after operation in a way necessary for securing functional healing of the transplant. So that it is the result secured in man that decides the value of the operation. Also ore must not as has happened allo himself to pa's judgment in

the germinal tissue of the bed the implanted

and thereby its reconstruction. The proou

\ d xhCh g B d 6



Autilat shitton of the lwerend fihe us thinee dofth sme bone fi 4m th

formed 1 year and 5 months later because of religious considerations of the patients 1 showed this interesting specimen in 1910 at the German Surgical Congress and have de cribed it in detail in my book entitled *Tree Transphinations* The specimen showed complete union with the diaphysis the

was due to the fact that out of fear of toxe influence of the degenerating marrow. I re placed this latter with oddoform passe and thereby but off the inner part of the transplant from its nourishment. The joint sur faces of the tibia were grown fast to the men ic of the bed the crucial ligaments were united with the tibia the capsular attach ments were well united and there were no afthe ions in the joint cavity. The joint car tilage was everywhere well maintained in deed regenerated. Only opposite the condyles were there pressure lesions.

Il o in a second case operited upon by me in 1910 in which the entire lower third of the mur was rected on account of arcoma and homoplastically replaced from an amputated [8]. I obtained the spicimen later through amputation on account of recurrence after 5 months. In this case all othe joint cartilage with even the furrows on the condyles, was well muntained while the capsule and the crucial ligranusts had healed in good shape. The substance cells and nuclei of the joint cartilage.



Fig. A t pl lic ub t t t n f the upper end f the hum tu with the upper end of the fibula ati 3 months

appearance However the subchondral spongy structure was necrotic and the deener layers of cartilage were spread out in star like patterns and in a state of cellular regeneration. At the edge of the specimen vessel bearing connec tive tissue was forcing its way into the spongy spaces under the cartilage At a place on the edge probably injured by trauma superim posed upon the cartilage connective tissue was forcing its way out from the synovial attach ment as a tender membrane. In this vicinity were large nests of cartilage cells The compe tition between the ingrowing connective tissue and the cellular regeneration of cartilage around the injured point is not apparent in the specimen The cartilage was undoubtedly injured in an attempt at walking allowed 3 months after the operation This injury evidently did not interfere with function

maintaining the cartilage there was success even in reimplanting the entire femoral joint surface into the capsule which had been left and the reimplanting of the entire femoral and tibial joint surfaces together with men iscus and crucial ligaments into the capsule which was thereupon closed. On the other hand homoplastic transplants of this kind into the capsule of the recipient were unsuc cessful because of suppuration Other homo plastic experiments were tried out only with transplants under the skin. At this point the important question was touched upon whether for the preservation of the joint cartilage it is unconditionally necessary to transplant with it the joint synovial mem brane This question was affirmed by Judet This is the most important point of his research When he transplanted a portion of

piece without synovial membrane showed marked breaking up

The most important exp riment was the one in which an entire closed knee joint of a rabbit (which is everywhere surrounded by capsule) was transplanted under the skin with a control experiment upon the same animal with transplantation of a knee joint without capsule After 63 days the naked trans planted joint was surrounded by fibrous tis ue that filled the joint space. The superficial cartilage layer had degenerated and was replaced by connective tissue. The middle laver showed degeneration. On the other hand the joint which was transplanted with its capsule was found inside of its capsule which was adherent to its bed in an astonish ingly complete state of preservation without ign of degeneration in the cartilage cells with complete nourishment of the synavial membrane fat lobules and memseus and with free mobility Judet came to the con clusion that the synovial membrane i the most important and specific source of nourish ment for the joint cartilage and that therefore

transplanted surrounded by a joint capsule which is simultaneously removed with it. There is no question that the synovial mem

other authors namely tho e of Axhausen have shown that joint cartilage transplanted mito soft tissue is also in a position to survive and that the noutrishing fluid from the soft tissue bed is in a position to insure pers ria tion and regeneration of the cartilage cell it is important that these results were obtained not only on animals but all on man

O trowski had the good fortine in 20 2 successfully and indeed homeplastically to transplant joint cartilage into soft parts in man just as Akhausen did He obtained the pieces of cartilage from arthrodesis operations on crippled limbs. The transplants were placed subcutaneously or intramu cularly Alter a preliminary digeneration in the first 8 weeks there occurred later a preponderance of regeneration.

Without going further into the subject of animal research I wish to establish the fact

when the tran planted joint cattilage has a bed lined with spowall membrane. But see tunly the cartilage may survive when not surrounded by synovial membrane. This is exceptionally important in entire trin plantation 1 e tran plantation of two joint surfaces. (See Entire Joint Transplantation.)

THE HALF JOINT TRANSPLANTATION

The first case of half joint transplantation operated upon by me in 1907 wa a existic sarroma in the upper third of the tibia. The tran plant which was taken from a freshly amputated leg took exceptionally vell vith bearing. In spate of the fact that the joint surfaces that on a raticulate exactly since the transplant had to be talen from a leg which did not correspond as to right and left only in the control of the contro

er





Fig 4 F ur m ntis afte hom pl st c subst t tion of th pp r h lf of th him rus 1th th i e half of the femuri ma cop tated lg

Resides this the possibility of nounshment is bad on account of the injured and exattricial bed. According to conditions we are concerned with planting back the joint cartilage either alone of together with a variable sized portion of bone and sometimes with fresh sometimes old dislocation fractures and dislocations. Tuffier named the procedure

chondrollasty without however as the name would suggest imming the operation to reimplinatation of the cartiling alone. His procedure correspond for the most part to that of Jacob 1912 who hollowed out the resected humeral head in cases of old shoulder dislocations by temoring the pongosum and planted the cartiliagnous bony cap on the rounded off stump.

A second procedure is that of Klapp 1909 for old shoulder joint dislocations. It consists in reimplanting the joint head, which has been freed from adhesions on the humeral haft, which has been freshened by sawing HOMOPLASTIC TRANSPLANTATION OF JOINTS

It is necessary to distinguish between the fresh homoplastic transplant and the homoplastic transplant and the homoplastic tran plant from the fresh cadaver 's regards the first only those amputated limbs are considered suitable which are undoubtedly free of infections or tumors. The material is finited to cises of new wounds requiring am putation and to cases with dry angiosclerotic necrosis (never with gangrees or diabetes). Further cases of infantile paralysis can be used if amputation is desired because of complete lack of functionand returded growth. Finally in all cases in which severe wounds with paralysis muscle destruction etc.

of the humeius without shortening the shaft

talage or old patients who e joint cartilage has changed through arthritis deformans are not favorable subjects. The joint cartilage of paralyzed limbs and the metaphysis and epiphysis affected with probably malacia. as the 12 year old child could soon walk and run

The specimen teaches that in hill joint transplantations the joint cartilage is main tained and nourished from the joint side regenerates itself in spite of the complete necrosis of the underlying spongosa and further that early function deters cartilage regeneration. Clinically the half joint transplantation whether autoplastic or homoplastic has proved its worth and will remain a recognized procedure of surgery. I shall indicate the most important possibilities of the operation in so far is they have given me and other authors the best results.

UTOPLISTIC HALF JOINT TRANSPLANTATION

a corresponding portion of the lone. In a short hone it is possible to retain both joint surfaces. It is absolutely unneces as to retain the capsule on the transplant if the capsule in the bed has been preserved and can be fastened outside of the joint surfaces. However when the capsule is not present in

velop from ingrowing connective tissue has not been clinically justified and naturally the autoplastic operation is to be chosen only when a corre ponding joint head can be re moved without damage

The source of material is limited usually to the phalanges of the toes to the fourth metatarsal and to the upper ends of the fibula and radius

The first autoplastic phalangeal transplant attom was described by Hennich Wolfe in 1909. The tuberculous proumal phalans of the fourth finger had been removed together with the destroyed capsule of the proumal joint and was replaced by the proumal joint and was replaced by the proumal plans of the second toe together with its two joint ends without the capsular covering One was a man of the second toe together with its two joint ends without the capsular covering One

amination showed an excellent function in the hand and finger—in excellent result similar to that obtained in my first homoplastic experiment of this hand. The important point

it is not used

The literature shows that the autoplastic replacement of philinges his become uni versally established (v Stubenrauch 1000 Goebel 1011 Leonte 1011 Kuettner 1912 Sievers 1913) Lucttner us d the proximal phalanx of a hammer toe to replace a portion of the fifth metacarpal remove I becaus of an enchondroma O lecker implanted the mid dle part of an amputated finger to replace in the other hand the proximal segment of the thumb which had formerly been r moved because of tuberculosis My assi tant Pehn used the small head of the radius with an adjacent portion of bone for replacing the lower epiphysi of the same bone (Fig 1) Of significance | Bardenheur's (1000) use of the fourth metatorsal together with its head for replacing the joint process of the lower

there was excellent active function. In a similar manner 2 cases were operated upon by Borelius in 1913. Van Saar replaced the lower radial epiphysis with the head of the fibula (Fig. 3 a b c).

I emplantation I a sub-group of autoplastic transplantations. Experiments show that a cution of joint planted back into its own bed is in better condition for taking than one transplanted from another place as it always fits well the function I everywhere uniform and in no piece increased or injurious. The I of greatest value in reconstruction with living issue but the conditions at the reimplantation operation are such that the section which I reimplanted is seldom in as good condition as the u ual autoplastic set ton for after joint and dislocation fractures not only the bony portion but also the joint cartilyes show severe traumatic injure. In

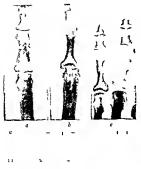




Fig 4 I urm nth aft rh m pl st subst t in of the uppe half f the h me u th the l e half of the I mu ir m n amputated leg

had on account of the injured and ceatrical bed. According to conditions we are concerned with planting back the joint cartilage either alone or together with a variable sizedportion of bone and sometimes with freshsometimes old dislocation frictures and dislocations. Tuffer named the procedure

chondroplasty without however as the name would sug-est limiting the operation to reimplimation of the cartilage alone. His procedure correspond for the most part to that of Jacob 1912 who hollowed out the resected humeral head in cases of old shoulder do locations by removing the spongosom and planted the cartilaginous bony cap on the rounded off stump.

A second procedure is that of Klapp 1909 for old shoulder joint dislocations. It con it is in reimplanting the joint head which has been freed from adhesions on the humeral shaft, which has been freshered by sawing

HOMOPLASTIC TRANSPLANTATION OF JOINTS

It is necessary to distinguish between the fresh homoplastic transplant and the homoplastic transplant from the fresh cadaver. As regards the first only those amputated limbs are considered suitable which are undoubtedly free of infections or tumors. The material is himted to case, of new wounds recurring am

used if amputation is desired because of complete lack of function and retarded growth Finally in all cases in which severe wounds with paralysis nuiscle destruction etc

changed favorable

paralyzed limbs and the metaphysis and epiphysis affected with probably malacia

or di located joint on the upper and lower end of the humerus without shortening the shaft

spongiosa are more slowly and less completely restored The preparation of the bed requires restoration of the most favorable conditions for noun hment of the transplant. No fatty tissue must remain in the wound cavity. In tury from wound retractors is to be avoided In a dislocation of the end of the bone to be resected the tissue of the bed must not be crushed or torn In removing sections of joints on account of tumors all this may happen Favorable relations are more difficult to re establish after old traumatic and inflammatory disturbances. In such cases scar tissue which does not offer the transplant good nourishment can casily be left. After tuberculo is and suppuration the latent tissue infection and sensitiveness of the tissue to traumatic irritation are additional factors The joint capsule may be left in the bed only when it i proven to be completely normal

I consider the immediate tran for while

has been pre-erved in sterue mun 2 a way proceed so that during the preparation of the bed the case designated for amputation is prepared. After completely lighting the cessels in the bed and arresting the last ozang from the this with gauze dipped in warm Ringer's solution. I remove the transplrint bloodlessly and imbed it immediately while the amputation is done by an as island. In a case, I received amputited limbs from

large joint operations carried out the half joint transplantation as in my first case. The

and further metacarpal and metatarsu uous, and phalanges. It was not ulways possible to obtain identical joint sections for instance to replace resections of the upper tibu and of the lover femur since amputation materni usually comes from the feg. Thus I have had to replace the upper half of the humeru from the lower half of the femur shaping the con dyle bearing section to corre pond to the head of the humerus (Fig. 4)

Frequently the upper half of the fibula had to be used for replacing the humerus I also replaced the lower end of the radius from the lower end of the tibus and the lower half of the ulna from the femur I have not replaced the lower end of the tibus.

The case reported 3 years after the operation illustrated in Figure 8 a b c showed

at Surgical Congress 1910)

Among the cases which I have completely described in my book on transplantations there is only one single operative failure and in this case the chinical treatment cannot be blamed for this since the patient left the clinic before conclusion of the treatment. The upper third of the feminy had been replaced homophystically after removal for obtenishoran critical with spinnaneous fracture and bending of the entire trochanter region. A small instula had formed and had not be a treated. Following an expansion marked to the contract of the c

homoplastic portion of the diaphysi usuany of the fibula. It is worth while to emphasize that some perosteum should be left on the

callous union

If the capsule in the bed is in good condition its edge are fastened on the other side of the junt cartilage to the periodecum of the transplant. The soft parts must be sendaround the transplant with the greatest exactness so that they will be made to fit might throughout.



Fig 5 II m pl t b t tut on of the upp thid f the t ba from n amput ted l g i ve rafter the transplant it bact eff on fie ye c ti exte to fie year

Halsted so that it is unnecessary to put windows in the cast and to remove the skin stitches before taking off the entire cast for under the silver foil not the slightest stitch inflammation will occur

A -1

After removal of the cast active motion is cautiously begun. Not until weeks later is passive motion with apparatus started. That the musculature must be simultaneously strengthened by massage and electricity is self-evident.

A difficult point in the after treatment is when it allow weight bearing. It is certain that in my first cases. I allowed weight bearing much too early. As long as the cartilage is not ufficiently nourshed and is not reginerated in places where it has degenerated it is just spowerless to rusts pressure and rubbing as is the joint cartilage of the aged and of patients with neuropathic joint diseases. Pressure, ulcress and furrows develop. According to my experience motion with weight should not be allowed until at least 3 months after the experiation. Therefore a weight diverting appyratus is offen necessaria.

A still more difficult problem than the nourishment of the joint cartilage is the nour shment of the subchondral spongiosa. In well healed transplants removed because of tumor recurrence I found after 1 year and 5 months the spongiosa not entirely replaced

dered at for the blood vessels must grow in through the periosteum and cortex of the transplant by using the canal present in the cortex The transplant becomes vascularized from the marrow tissue of the diaphyseal stump but in cases in which large sections of bone are involved the distance from the marrow to the joint cartilage is so long that the subchondral spongrosa is vascularized almost exclusively from the perforating ves Therefore there is no special disad vantage in fastening the transplant to the diaphysis by means of a bolt Cognizance of this is very important in the after treatment Today I would use a weight diverting ap paratus on a leg at least 2 years

In joints of the arm the harmful influence of pressure on the joint surface plays no role I ressure is produced to a slight degree by



muscular activity. The dead spongs trahecula which he deep under the joint critilage are endangered through pressure especially during the time when the first vascularization set in with resorbing influence and when the living transformation because of lack of sufficient osteoplasts of the bone marrow proceeds vary also be and proprietcils. All this

plays a rôle especially in the total joint

transplantation

I have not noticed in half your transplants tons secondry yourt changes similar to those seen in total your transplantation and in a thritis deformants nor his else riertition of the yourt capsule as might well be possible be cause of the foreign certilize of the your transplant. Hydrops occurred only once in the first case in a knee your after the upper third of the blub had been replaced. There was a special reason for this as the specimen showed. In the case I had filled the marrow

cavity with iodoform paste with the result

the marrow cavity was filled with abrous tissue nch in vessel there was a wall of granulating tissue which at one place sho ved union with the joint space becaute of a pressure ulcer of the joint cartilate.

My experience and that of other to date with the half joint transplantation justice the conclusion that this operation with either autoplastic or homoplistic transplants offers the greatest hope of rec tabli hing complete function even in cases with the greatest on

erative defects and therefore has taken the place of the former mutilating operations To be sure one must consider the long duration

from a fresh cadaver in various ways since I gave it up because of failure. Failure in my cases was due to infection in pite of the fact that the condition of the cadaver was beyond

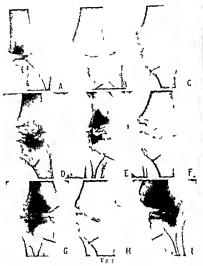
and I was able to do this in later case of entire joint transplantations. In case of ster is healing cadaver material also has disad vantages. The specimens described to date of transplants of cadaver joint section and two cases of mine plainly show that this material is apt to cuive a strong irrition of the connective it sue of the bed it leads to a scar like encapsulation of the entire dead transplant (compare the cases of Kuettner and

and M B Schmidt)

TRANSPLANTATION OF ENTIRE JOINT

In my fir telinical attempts at transplants ton of an entire Ane, joint I did not use the capsule. Bauchman he ever in his too autoplastic cases transplanted the joint together with its closed cappule. I was guidely the thought that as the tran plant consisted of the two joint surfaces and was surjounded by its own capsule it had a poor chance for nourshim in because I believe the capsule, would obstruct the fluid of the bed

hech alone noun hes the transplant until we el bave grown in Nourshmett of the joint cartilage my take place only when wessel bearing germinal issue of the bed has grown into the c.p. ul and when thereupon in favorable case s, noval membrane is formed from the specific cells of the capsule In the cloved can ul, the transplant i thus





Fg 7 Hom platch e j transplatat aftry a b ftrt y e nd 4 m nths c afte jer and 7 m th d nd ft 3 yeas nd 9 months f dg after y ars a d 9 month d after j ars Fg 8 C se sh wn n f gur 7 ftr 5) rs

dependent entirely in the beginning on the nourishment from the side of the bon 1 mps

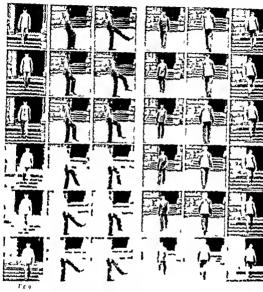
the bone stump Frequently the mistake is made particularly in animal experiments of disturbing the channels of nourishment as may happen if bolts or wedges are used in producing union

Joint transplants without the capsule are in the outer parts in connection with the nounshing bed From the beginning I con

sidered this to be e pecially important since
the two joint surfaces lying opposite each
other are dependent on the nutrient fluid of
the bed. The capsule undoubtedly would
form a this is
of after

tre unimal experiments that the presence of the capsule cannot with certainty prevent connective tissue ingrowth into the toint space.

, jace was destroyed by ingrowing con nective tissue the entire capsule together with



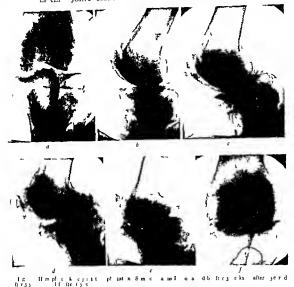
its villi was repla ed by scar tissue. I do not believe that the tran plantation is the cause of the ansular portion of the transplant be

occurred connective tissue organization and there are no conclusions to be drawn from this experiment. On the contrary when Dally Vedova transplanted the entire your without

the capsule in aunia

tions showed much better maintenance even in the presence of secondary changes through resorption and producation. This is all the more noteworthy since in these experiments very frequently the nourishment from the bone stump was impared through the wedging in of the translant.

In my opinion I do not believe that the question as to whether it is better to trans



plant an entire joint with or without its cupule 1 inswered by experiments on animals. I true planted an entire, knee joint together with its capsule in one ca e a child. I obtained the maternal at an arthrodesis operation. After good heding, motion wis estabish hed but after; months a fistula occurred and when I opened the joint I found the necrotic remains of the capsule. The capsule had not received nourshment and had de g nerited. To prove that this operation is a occes in man the capsule would have to heal in So far as I know such a case has not been reported

To me it is improbable that it could succeed for uccess would presuppo e an ideal preparation of the bed for the transplant so that the wound surfaces everywhere would fit exactly against the capsule enclosing, the joint portions—buch an exact preparation of the bed is not possible either in resection be cause of tumor or above, all in resection for ankyloss—it all o happens that in the joint portion the wall of the bed itself is badly



Thea fter 6 m th b ft rayears e it raye rs

Tig to H mort stic kne) t tra spl t to a noun hed in different portions especially where it is formed by broad tendons. There fore I do not believe that the entire joint enclosed in its capsule can be successfully

tran planted After a thorough examination of the reports to date of animal research by Judet Dalla Vedova Obata Wrede and others I am of the opinion that the results argue neither for nor against the simultaneous transplantation of the toint cansule. In the difficulties of animal experimentation is to be found an explanation of the varying results and con troversies Dilla Vedova and my assistant Wrede obtained better results without capsule transplantation than with closed joints and relative to the latter (closed joints) Judet demonstrated that only in cases of subcuta neous transplantation were all separate parts

re Hmg! t knej t tra plant t s years. Sam es a in Figure s

tempt For the first attempts at entire joint transplantation I chose a case with very severe ankyloses with destruction of the soft tissue through suppuration Although the operation thus was similar to that used for mobilization of a stiffened joint in contem plating the results one must consider that toda) we would view such cases as unsuitable even for ordinary arthroplasty

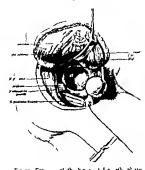
When I first undertook entire joint trans

somts With the idea in mind that by trans planting two articulating joint surfaces I

Although of ankylosis of the knee joint

had used Judet's technique on man. On the contrary Judet's assertion that only joints covered with capsule will take and that the ones without capsule are resorbed surely would have held me back from my first at

changes observed in joints so operated upon Naturally only small joints can be removed and transplanted homoplastically According



Fg 13 Exp of th hpj tir rth pl sty Th ms is priforms d the mu ul obtu tor in transibed; td by c ptwo by foct nor the em lof the fat trasplt

to Bauchman stechnique the joint transplants have always included their entire capsules

with such operations. The end results have

half joint transplants. It is very important to give the transplant a broad contact with the resected surfaces of the bed. For this reason in removing the material. I saw off the femoral

stump is not broad

ment cus transplanted into a joint defect which his been exposed by a large flap. If po sible no nuls screws or sutures are employed. If one places the bow shaped end of the tran plant exactly in the arch formed by



Modeling of the jint urfaces ite M phy Th r w urf c of the patell c n b c ered with p d cl d il p ffaity tiss ef m thes ro d ng ar a

the resection of the femoral joint portion the transplant rumains without especial fastening When foreign bodies are used resorption can easily occur if the nails are not removed early. In the first case I used nails but later about doned this practice

In my first case of knee joint transplanta tion which was operated upon in 1007 and which on account of destruction of muscula ture was exceptionally unfavorable there is still after 16 years painless and good weight bearing and joint motion sufficient for going up and down stairs This is to be all the more wondered at since in this case I under took several subsequent operations | First 4 months after the operation an attempt was made to estable h a new joint capsule with hydrocele sac-a procedure which is not only entirely unnecessary but which may have injurious consequences through the causation of thick connective tissue masses Second I had to repair the defective extension apparatus in that the long extensor of the toes was turned upward and united with the rest of the quadriceps. Third the patient during the war was caught in the I ussian dry on East Prussia and had to march days at a time Although the well knee swelled painfully because of overevertion which it has done repeatedly ince the leg operated upon was given a more severe test and in spite of this the knee has remained free from pain though the active mobility has somewhat lessened. In conclusion it is important to



Ig 11 H m platic k jo t tanpl tun fter 6 m oth b after 2 y rs c fte 8 years

nourshed in different portions especially where it is formed by broad tendons. There fore I do not believe that the entire joint enclosed in its capsule can be successfully transplanted.

After a thorough examination of the reports to date of animal research by Judet Dalla Vedova Obata Wrede and others I am of the opinion that the results argue neither for nor against the simultaneous transplantation of the joint capsule. In the difficulties of animal experimentation is to be found an explanation of the varying results and controversies Dalla Vedova and my assistant Wrede obtained better results without capsule transplantation than with closed joints and relative to the latter (closed joints) Judet demonstrated that only in cases of subcuta neous transplantation were all separate parts of the transplant maintained while the experiments of Obata and Minoura are not con clusive because of scar tissue formation

had used Judet's technique on man. On the contrary Judet's assertion that only joints covered with capsule will take and that the ones without capsule are resorbed surely would have held me back from my first at



Fg Γ_k

Igr Hmpl tckn j tt pl tat ft
r) rs Sm seasin Fσu

tempt. For the first attempts at entire joint transplantation I chose a case with very severe ankyloses with destruction of the soft ussue through suppration although the operation thus was similar to that used for mobilization of a stiffened joint in contemplying the results one must consider that today we would view such cases as unsuitable even for ordinary arthroplasty.

When I first undertook entire joint trans plantation there was not a single safe method of making a weight bearing joint movable

but Hoffa had reported that these had given no satisfactory results in weight bearing joints. With the idea in mind that by transplanting two articulating joint surfaces. I not only transplanted the physiological tissue

of ankylosis of the knee joint Although

what lessened but passive mobility was good With the hand one could feel on motion a distinct rubbing. After 6 years (1919) the patient allowed another examination. In order service to

omed him leg but in

spite of this the active motion had diminished only about 10 degrees

The roentgenograms show some important changes Figure 10 3 shows good fitting of the joint surface after 3 necks as does Figure 10 b a side view Figure 10 c shows the limb in the position of flexion 1 year after operation. It shows the use of the condyles and the sliding of the patella on the patellar surface of the transplant. The border be tween the transplant and the stump can be seen on both sides through a heavier thicken ing Between the tibial joint surface and tibial stump there is on the antenor edge light textured bone. Figure to d made 3 years after operation shows principally a flattening of the condules. The bone thickening has forced its way into the clearly distinguishable toint space. A broad bone proliferation extend out from the face of the patella but the patella is nevertheless movable. The bright ened area underneath the anterior end of the tran plant of the tibia is resorbed and bounded by thickened bone so that it (the bone) looms up like a marginal elevation. Behind the condules are broadened toward the knew bed and show forth in the picture a a broad pedicled exostosis like mass of bone which however down at hinder an active flexion of 45 degrees and a passive of 60 This is ex planned by the fact that a palpable bone mass extends out from the posterior portion of the median edge After 6 verts (Lig 10 c) the

lorth on flewon and extens in The anterior tibril edge is still more proliferated und strongly thickened. The broad existor is behind is lightened up and in the picture is more blurred the joint space is well preserved with relatively smooth margin and limited by thickened bone. In the pictures taken untenorly (fig to f) this is to be seen taken untenorly.



Fg 17 I po re f the hand ; int for the plasts

Calluses are present on the inner edge of the femur as well as the tibia

My material which comprises a cases is concerned with a permanently cured cases 3 finger joints o knee joints. Of the latter 8 were bony ankyloses after suppuration or in jury and s was a joint defect after resection Two further cases sub equently went bad after firm healing and motion were present One in consequence of infection at a later homoplastic restoration operation on ligamentum patellæ s through early departure from the clinic. In the latter case a suture abscess set in which developed into an acute phlegmon which the resident doctor untortu nately believed could be handled only through amputation. A further healed case of extensive knee joint defect is excluded because the princer failed to return to the clinic after 6 months

Of 8 failures r was lue to a severe postopers two farmorrhage the result of a bloodless operation which is a mistake in any case of tran plantation. After raising the flap on the second day to remove the hamatoma. I had no hope for union with nouri himent so took, the tran plant out. In a case of knee synostosis following joint and bone tuberculosis there divided after preliminary healing 4 to 5 months later absces es and fistular in which



fast por of thellower of the plans

remember that the soft tissues were extensive ly scarred as a result of a protracted support atton which caused bony and loast and that the mases of scar tissue could not be completely removed. Also motion and weight bearing were allowed much too early y weeks after operation. This case has been followed for to seas with repertaenory me.

After one half year (1/2 7 a) not the sightest changes were to be seen After 1 year and 4 months (1/2 7 b) there set in at the locations of union a bone thickening which also iffected the transplant. The concludes are in good shape but the tibula surface has become irrugular. In the callous

formation of murginal chivations i beginning



Ige Fpoelth bull j tfreth pl ty

broadened and thickened the bone prohierations on the posterior side of the tibial joint edge reach across the joint spree upward they have united with the bone formation in the cur so that motion is hindered. The tibial joint surface is still more deeply hollowed out and irregular. A relatively large amount of substance of the condylis, remains and i schrotically replaced. The joint surface of the femur is irregular.

In another case the changes were all a very interesting and typical Following a pus in fection of the joint the patient 17 years old

flevion to 60 degree passive to 70 and excellent ability to bear wight. The film (Fig. 9 and b and Fig. 10 a b c d e f) were made 6 months after operation. The nonligen exposures show unit vears after the operation smooth joint surfaces and in

part replaced by thick boy years and 9 months (Fig. 7 1 and g) the marginal eminences have become broadened and thickaned. The thickening of the transplant rist has increased and the Obial surface appears hollowed out.

After to years (Figs 7 h and 1) the marginal eminences especially on the inner side are

tion of the pati at. Ht. had in the menitume performed at home very difficult farm work, and had undertaken no mot or exercise. The junt region appeared somewhat swollen compared to its former condition but was expable of good weight bearing and we pain less. In bending active mobility was some



Ig 9 (1 ft) Roe tg gram 11 tr tn bo y ky ls (the hp; nt (Ths th sam se sthat sh τα in Ig e δ)

Fg Sam e e s i Fgures is and g y ar aft r the op rat a Wilk g beolutely n rm 1 Sport act its e ellent i rd ga heel d kung

joint surfaces and bony growth at the site of union are found to persist in the kine point ifter 2 years. Even when the clinical result relative to motion has decreased but hittle and at that under special conditions (excessive evertion etc.) the V-ray pictures show never theless marked changes which one must consider as typical. They concern the behavior of the springiosa and of the joint cartialize.

Judging from the histological findings the living transform on of home

slowly

broaden
grows forward into the spongoes of the trans
plant. But in the meantime the spongoes
which his below the joint cartialage degener
ates that is it becomes yielding so that the
joint surface is pressed in The recorption as
more marked and quicker than the restoration
process. That this most concerns the parts

lying farthest from nourishment is not to be wondered at It is for this reason that the rounding of the condyles disappears. As far as function is concerned the condyles are apparently worthless but not more so than they would be if vascularization and resorp too had taken place with insufficient transformation. These changes occurred in many condyles relatively suddenly and appeared as

ii a was

was made 2 years later After 6 years the changes are still more marked (Fig 11 c) without hindering the mobility (Fig 12)

As the spongrosa becomes soft and yielding in the \ ray p ct = be or



I g to Bo v Lyl is Boy ly fith hoj to a wm no Sycar fall 19 ye craft pe sti (See F 19) a A to of the thigh by a floor of the thigh estacling the potential The nipping fith of shough the want facethy in bonding the body fower of fix n of the theh b p s th

tubercle bacilly could be demonstrated in the granulations I'vo knee synostoses following suppurative osteomy elitis from the beginning were questionable since at operation encap sulated for of pus were found in the bone In spite of the fact that the foci were removed and the bone was disinfected with tincture of todine suppuration promptly developed and nece stated the removal of the graft. In a case of synostosis of the tibiotarsal joint caused by tuberculosis which was repaired by transplantation of the corresponding joint surfaces a recurrence soon developed. In an extensive defect of the elbow toint caused by

formed In spite of the fact that during the fistulous suppuration a sequestrum loosened from the ulna both joint ends recovered for the most part and showed in the roentgeno gram that through penosteal probleration they had entered into him union with the stump ends. The case was later discharged with a flash like joint

Of the 12 cases in which I can consider the transplant as permanently healed there were 2 knee joint cases which were discharged with good motion and weight bearing capacity after rig years but later reports are lacking

arm had been done for angrosclerotic gangrene of the hand I ventured to transplant the corresponding elbow joint including a 12 centimeter section of the ulna and a 5 cents meter section of the humerus Healing pro ceeded at first in a favorable manner so that

less but not yet completely normal mobility I have been able to follow 6 knee joint cases at least for a few years and several cases to

have set in in the course of years can as a

mobility and in \ ray pictures the good restoration of the joint portions with smooth

after 8 weeks the bone ends which had been



hown is a result possible. But none of the observations extend over as much as 1 year. With the homoplastic operation without capsule brilliant results are obtained but the

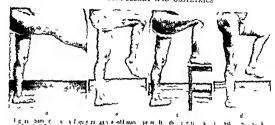
not entirely muntained and regenerated but na irregular joint surface and. The car talge surfaces remain smooth for it of 2 years then irregularities the origin of which is clearly connected with the institution of functional demands appear and progress for each let per comble very much in their nature and caus the juint changes in arthritis deformans above all however the marginal zone of the cartilage appears capable of proliferation under functional demands which must be due to its composition of cartilage and perconstemm and to the irritating pull and pressure forces which attack exacts at this

the first attempts were almost all

undertaken on broad joint ankyloses but the operative procedures for the mobilization of stiffened joints which have in the meantime been tried out and tested with pedicled and unpedicled tissue interpolitions approach the goal more nearly are more permanent as to results and are not dependent on homoplastic material which is difficult to maintain open question remains as to how the joints would have held up if they had been relieved of weight for several years, and if weight bear ing had not been started until after the pongrosa had undergone the transformation neces ary for termness. Then probably the breaking in of the spongio a would cease and with it the description of the sen iting over him cartilage but the pulling on the marginal joint cartilage caused by the necessary ever G es remain as cause of the proliferation

Joint tran plantation today is to be recommended only for large and especially for fresh operative joint defects. Still according to experience to date it is not advisable to it tempt the replacement of the large broad bone portions simultaneously with the re-

s tot b s ti en s



I in d standing a to on rated?

imilar to the marginal eminences of arthritis deformans They may extend under th ? "

Probably the condition 1 caused by the ir ntation of weight and motion on th

mut was wider than the stump there developed on the upper sur

face of the joint an exostoris like formation Here the new formations caused broadening of the joint region

The marginal eminences show at best in the 's ray picture as weak shadows (reduct by they thicken and pread Only then is the permanent condition reached fr we care

> DAIDSBOOK Po sally

it itta been torn loo e. First the shada he

a tive nerion of 50 degrees from full exten sion while in the fir t years there had been flexion of 70 decrees. In another ta e (Fg 12 also I is if a b c) the active flexion had rs to so de-

grees tranal por itely could Chrono

logically the occurrence is connected with the mechanical influences of weight and motion

is to no in contact with the penos teum penchondrium and synovial rest of the transplant are the parts fire nounshed Urte the tissue is the earliest to be trans formet wherefore every irritation my t give use to probletation. In similar manner one often see after count fractures callus problets tion at the cartilage marma after powerful motion evercises have been un lertiken and also their ratto res ion and with this im provement in motion when the e everes t cease

The transplantation of an entire joint together with soint capsule has been under

But suppuration and ca ting of of joint con nective tissue set in Ochlecker had better results with finger joints. But here there were

marked changes also The charcal experiences with the closed ~ m 1 expets

ared in

cause of in the m

small joints as Buchman and Goebel have

tive technique for all joints. He showed that the bone ends after resection of a stiffenct joint must be so shaped with a fine chisel and he devised a special instrument for this purpo e that the bone would roughly resemble the shape of the joint. For interposition he used mostly fat and fascial flaps. He worked less with free transplants of fat and fa cia

In the larger joints I have attempted to prevent the recurrence of ankylosis by polish ing the joint surfaces-in part by impressing stenle way before filing and by filling the joint space with sterile oil since this allows no blood clots to develop As I had no luck with this method in 1900 I twice resorted to the interposition of fatty tissue in the elbow as this method had proved of value in a similar application of the fat pad of the check to the tan joint. In these cases however reported in January 1917 the after treatment was un usually painful-because of the responsible gonococcal infection-so that a good result was not obtained Since 1010 I have used the procedure and have studied the changes in the interposed fatty tissue

At the International Congress New York in 1914 Murph mentioned my results as astomshingly good although they were hirdly as excellent as his and said. Free transplant attion opens a great future for arthoplasty. He informed me that he also occasionally had employed instead of pedicided fascial and fat

flaps free flaps only of fatty tissue Chaput reported in May 1011 a case of free fatty tissue tran plantation in a case of elbou ankylosis which he followed in 1012 with 2 further cases Amedee Baumgarten announced at the French Surgical Congress 1913 the cases of Chaput as the first but in this he was not correct. My earlier report had escaped his attention. While I introduced the free fat tis ue transplantation into joint surgery as an operation for ankillosis my as sistant Roepke to retain mobility applied the same procedure by inserting fatty tissue after the opening of diseased joints. He used the method first in cases of arthritis defor mans after smoothing off the joint cartilage then in cases in v high tuberculous foci lying in the bone near the joint cartilage had been removed and for replacement of removed in



Fig 4 hal s fibe ht h liter; ntf llo s a h led tub reul s 6 mo the fter the pe t n let r g fith m b p s i g fthe a m

jured meniscus in the knee joint. These are also today the most important indications. To these indications I have added cases with fresh shelling off of the joint cartilage after severe contusions and gunshot wounds. It was interesting to investigate in what manner the interposed fat flap changed and in what manner and watricular space arose. Murphy believed in a hygroma like transformation.

tatty ussue Animal research could not be used to decide this question. I must first obtain information by reoperating on man in order to receive light. The fatty tissue flap dest is nonrishment from the freshenel joint ends where it spreads out over the articular pace and al of from the connective tissue of the bed. There nourishment comes through union and here the fatty tissue endures or regenerates the middle layer out of which later the articular space originates changes. Oil of sits occur which are covered only by thin connective tissue. As soon as the functional demand of the joint ends set in there begins a fatty, tissue metamorphosis concerning a fatty tissue metamorphosis.



Fg 3 B n) kyl fractur f th m ll f m bdu t lpo t Idis-o es r liw man month aft the perat Fyt ns dff n f th foot W lk g good

placement of the joint. The former above all is most important. Before everything else it is important that the slow transformation of the spongrosa be hastened in every way.

spongiosa portion must be removed either entirely or at least extensively along the marginal region. This has also the other great advantage that the border zone of periosteum and cartilige which favors proliferation has been removed.

Indeed in cases of half joint transplanta tions in which it was necessary to decrease the too wide epiphysed portion by removal of cartilage and corticals or by removal of a half epiphyseal side I have seen not the slightest marginal proliferation. In one case which is especially to the point the malleolar end of the tibia of an amputated leg was reduced circularly on the joint end to replace the ulina so that between the joint cartilage and the corticals of the diaphy as there was repartically noting but spongosa. It was well munitamed after it years and without any proliferation and there was hulliant.

function (piano and organ playing) In case of a weight bearing joint the corticalis should not be removed on all sides as the scant but for the ulna sufficient thickening of the spongiosa in this case might mislead one to suppose

In the future it must be decided in suitable chinical cases, whether thi removal of the marginal cartilage zone can serie to better nourish the subchondral spongoss or whether it is better entirely to renounce th joint cartilage and to transplant only the corresponding bone portions and later obtain motion by interposing fat its use or fasci.

Relative to tran plantation from fresh cadavers I have had access to only 2 ca es From a healthy young male who had been executed I was able to obtain and remove in the operating room the entire Luce joint and to transplant it. The transplant healed in well but when I removed it 5 month later becau e of complete stiffening there had grown around it a hard thick callus of con nective tissue as a result of the reaction of the tissue of the transplant bed to the degenerat ing material adhering to the transplant. An cloow which I was able to remove with very large parts of the ulna and humerus immedi ately after the death of a man from skull fracture did not heal in because the very shraveled soft tissues which could be closed only with tension were responsible for the fulure of the sutures

ARTHROPLASTY

For many decades attempts have been made to mobilize stiffened joints. Mac

which after fracture causes a false joint. But the most significant service and the great advancements we one to the immortal Wurphy who worked untringly in this field and who communicated his finished and splendid results at the American Surgical Congre sin 1914. He worked out good opera

80,

callous tissue enclosing a new articular space I consider fatty tissue as the best material for interpolition after separation in synosto is and ankylosis of the joint and for the restors tion of limited joint cartilage defects

The manner in which I lay open the differ ent joints is absolutely uniform. Always a large flap is made from the soft tissue of the joint region and the musculature that bridges over the joint. The tendons of these muscles are not severed but their insertion to the bone 15 loosened together with a thin plate of bone This has the great advantage that the in sertion of the muscle can be transposed as is especially necessary in the hip since through downward transposition of the separated trochanter major the middle gluteal muscle so important for holding firm the pelvis can be brought into greater tension. Other sur geons avoid separating the muscle from its

are followed and separation is made from the trochanter The flap consists of a block of tissue composed of skin to muscle (glutzus medius) The different portions are not separated as is done in Murphy s operation (11, 13)

In knee joint cases an anterior flap is lormed with which laterally close to the posterior edge of the condyle, the lascial rein forcements and lateral margins are cut

adherent knee cap must be separated from the femur by clu el the entire flap surround ing the lower portion of the quadriceps is prepared as far upward as the suprapatellar bur a normally reaches (Fig. 14)

For the elbow a similar flap is made on the extensor side with flat removal of the tip of the olecranon (Fig. 15)

For the foot the dorsal flap must reach far downward to the vicinity of the head of the metatursal bone because the dorsal skin of the foot is nourished by the dorsalis pediartery The evered extensor tendons remain

included in the flap and are reflected back with it over the calcaneotibial joint above

At the shoulder joint a curved incision is carried out beginning over the acromial proc ess (which is chiseled off) and proceeding along the lower border of the clavicle to its middle third from which the fibers of the deltoid must everywhere be separated. Then the incision runs along the anterior edge of this muscle according to the necessity of the case to its attachment to the humerus (Fig. For the wrist I prefer a curved posterior incision likewise for the finger joints (Fig. 17) With these directions for incision the vessel and nerve supplies of the reflected tissue are insured

After severing the connective tissue or bony synostoses the bone ends are formed to con lorm as near as possible with the normal bone -the splendid instrument designed by Mur phy being used. I have had the best results with this instrument and have used it in preparing the acctabulum and the head of the femur The chiseling and filing must not be done with electricity however I experienced once the separation of shell like sequestra so that I now use for smoothing the acetabu lum and femoral head only the hand although very great lorce is necessary for this. It is of course understood that at the prepared joint ends any remaining periosteum should be removed to prevent proliferation tissue remnants of the capsule must be re moved and the ligaments must be protected as much as possible and sutured if they have to be separated. It is further evident that bleeding must be absolutely stopped articular space in the knee joint is made about a thumb s thickness in breadth in the hip and ankle it is made somewhat narrower, and still narrower in the joints of the arm, and nar 00 0 6 600

mere even in thin individuals the fatty tissue is sufficient. The flap is immediately laid in the defect and fastened with only a lew statches over the lower or upper lemoral end in the knee and hip joint respectively in the shoulder joint on the head of the humeru in



like callus. In the knee joint. The cysts of the middle zone, which originate through de generation join together to form larger cavities because their thin septa gradually tear as a result of joint function the fat which is freed is resorbed and the walls of the former

operated upon the second time showed only one single large articular space present without adjacent adhesions

I have always preferred fatty tissue flaps without pedicles to the pedicled ones since the pedicle of these flaps is hardly satisfactory for good nourishment for at the place where the flap is turned into the joint it must necessarily be pressed by the surrounding muscle Besides this the transplant without a pedicle has the advantage that the joint on all sides can be closed with simultaneous fastening of the previously separated liga ments Opposed to the free fascial tran plant the fatty tissue has according to my opinion many advantages. The fascial flap is only a thin membrane. It necessitate thus the most exact patterning with reciprocal articulation of the joint surfaces. When they do not

which my assistant Richn reported at the International Surgical Congress New York The connective tissue part of the tran plant which is in part regenerated and in part restored through the germinal tissue of the bed proliferates greatly under this influence while the fit cells degenerate There develop at all points of the joint sur face where there is pressure and slipping a layer several millimeters thick of very dense connective tissue poor in blood vessels. I found in several cases reoperated upon that in this connective tissue cillus, there had de veloped after 13 months a transformation into fibrous cartilize and an endothelial like cell covering in the articular space. The fatty tissue endures as such only where it is les exposed to the pressure or the slipping motion of the joint surfaces. Thus there form en tirely on their own responsibility meniscus

their existence at a second operation. One can prevent adhesions only by very exact patterning of the joint surfaces and through

ity for weight bearing may suffer because of

that by means of the suggestion and states the bleeding as every autoplastic tissue graft does. All of the freed fat acts as would oil to guard again t clotting. Because of all these natural advantages not only those that are evident at the time of operation but also the abbity (as shown by Rehn) of changing into a

callous tissue enclosing a new articular space I consider fatty tissue as the best material for interposition after separation in synostoria and ankylo is of the joint and for the restoration of limited joint cartilage defects

The manner in which I lay open the differ ent joints is absolutely uniform. Always a lurge flap is made from the soft tissue of the joint region and the musculature that bridges over the joint. The tendons of the emuscles are not severed but their insertion to the bone is loosened together with a thin plate of hone This has the great advantage that the in sertion of the muscle can be transposed as is especially necessary in the hip since through downward transposition of the separated trochanter major the middle gluteal muscle so important for holding firm the pelvis can be brought into greater tension. Other sur beons avoid separating the muscle from its anh shi

surfaces as it is after wider opening

In opening the hip joint its natural curves are followed and separation is made from the trochanter. The flap consists of a block of tissue composed of skin to muscle (glutcus medius). The different portions are not separated as is done in Murphy's operation.

In knee joint cases an anterior flap i formed with which laterally close to the porterior edge of the condule the fascial rein forcements and lateral margins are cut

†1.

adherent knee cap must be separated from the femur by chi el the entire flap surrounding the lower portion of the quadriceps is prepared as far upward is the suprapatellar bursa normally reaches (Fig. 14)

For the elbow a similar flap is made on the extensor side with flat removal of the tip of

the olecrinon (Fig. 15)

For the foot the dorsal flap must reach far downward to the vicinity of the head of the metatars al bone because the dorsal shin of the foot 1 nounshed by the dorsalis pedia artery. The severed extensor tendons remain

included in the flap and are reflected back with it over the calcaneotibial joint above

At the shoulder joint a curved incision is carried out beginning over the acromal process (which is clusteled off) and proceeding along the lower border of the classice to its middle that from which the fibers of the deftoid must every where be separated. Then the incision runs along the anterior edge of this muscle according to the necessity of the case to its attachment to the humerus (fig. 16). For the wrist I prefer a curved posterior incision likewise for the finger joints (Fig. 17). With the edirections for incision the vessel and nerve supplies of the reflected tissue are insured.

After severing the connective tissue or bony synostoses the bone ends are formed to con form as near as possible with the normal bone—the sphendid instrument designed by Mur phy being used I have had the best results with this instrument and have used it in preparing the acetabulum and the head of the form. The had no 30 ft or just not be

sequestra

so that I now use for smoothing the acetabu lum and femoral head only the hand although very great force is necessary for this. It is of course understood that at the prepared joint end any remaining periosteum should be removed to prevent proliferation tissue remnants of the capsule must be re moved and the ligaments must be protected as much as possible and sutured if they have to be separated. It is furth r evident that bleeding must be absolutely stopped articular space in the knee joint is made about a thumb's thickness in breadth in the hip and ankle it is made somewhat narrower, and still narrower in the joints of the arm and nar rowest in the finger joints

Here even in thin individuals the fatty tissue is sufficient. The flap is immediately laid in the defect and fastened with only a few stitches over the lower or upper femoral end in the knee and hip joint respectively. In the shoulder joint on the head of the humerus in

the elbow on the lower end of the humerus After that under string pull and counter pull the proper position of the joint ends occurs

The fatty ti sue which is superfluous as removed. The separated lagaments are las tened to the peno turn the separated bone insertion (troubanter tuberositss thine ole cranon acromion) is fastened to the bone with a fine nail or with periosteal statches. For transposition of the trochanter which I al

trochanter has been removed, and is retracted to one side. From the cortical is small plate is removed. At this point, the trochanter process is nailed on in strong abduction. If the gluteus medius is very atrophic as in old ankyloses, the tensor fascine is used also (see blow). The soft issues over the articular spine are closed everywhere with exactness with catagut. Drainage is never used. The

penods of time

The operation gives only the basis for results—the after care obtains them It is necessity to steer between two great dangers. One danger is a wobbly joint the other is a recurrence of the stiffness. It is therefore necessary to know the causes of each

A flul joint may easily arise when because of the pathological process the lateral ligaments are destroyed and when in resecting ankyloses too wide a space is made between

tions develop knee joints which in months can be moved more than 90 degrees become

In m; material there is only r elbow case (after severe gunshot wound) and 2 knee joint cases (in very fat women) in which this abnormal mobility appeared and made neces sary an operation on the joint ligaments. Flail joints are seen more commonly after fascial interpositions are used. Slight degree of abnormal mobility can disappear as a result of muscular strengthening but recur in greater degree when ca uid sickness in bed results in mactivity. I have seen the occur temporarily in a knee joint after appendictis.

Stiffening recurs naturally every time there is an infection. This is not always due to operation but occurs after suppuration of all kinds especially after severe injuries as after latent infection following war injurie order to prevent as far as possible supputation after operation at least one half year after closure of the last fistula should elapse before operation. But even this is an indefinite limit for after even a longer time an encapsulated small abscess may be encountered likewise invisible encapsulated masses of bacteria Besides this there is a certain hypersensitive ness of the tissue to all irritations. Among my cases of war gunshot injunes out of 27 op erated upon for knee joint ankylosis 4 be ame stiffened again through latent infection and out of 36 elbows operated upon 3 suppurated without affecting mobility. In one knee joint following war injury (gunshot) I found on separating the bony ankylosi a bone abscess the size of a cherry I removed it and filled the space with fatty tissue and finished the operation in the usual manner Healing with out reaction and excellent function resulted

Other reasons for recutrence of stifening tond in the overdevelopment of counce, the tissue in the tissue surrounding the joint In spite of pinnary healing in a case following a war gun hot injury suffering ordured which I believe was due to hypersensiveness of the tissue. The hypersensiveness was caused by the previous severe and long lasting supportation.

The earlier one tries to mobilize a joint with fatty to sue the more apt is he to have

the inserted tissue is rubbed to pieces and the

callus masses are able to unite. In the larger points the first movement should never begun before 4 weeks after operation because the fatty tissue otherwise will be completely destroyed. It is essential that the fatty tissue regenerates completely in its nour-shed layer so that metamorphosis into a connective tissue callus may take place under the influence of functional demands. Not until this condition is reached is there protection against bone proliferation which may be produced by irritation through movements not until their are the freshend bone ends en tirely covered and this injurious prohiferation guarded against

But exercises instituted too late frustrate results. In children and sensitive hysterical patients without will power (also those who have been in accidents and who have invalid s income play a role) and in eases in which the joint is cautiously protected from every mo tion connective tissue stiffening may occur If one attempts to hasten the progress of exercise by force under narcosis the good re suit as a rule is very transient. The tissue in jury which is produced is accompanied by bleeding The blood effusions and the trau matic irritation work forcibly on the germinal connective tissue which has originated in the healed in fatty tissue so that connective tissue stiffening results. I have therefore always warned against foreeful movements under narcosi I have operated upon many soldiers with ankyloses entirely the result of superflu ous and injurious brisement force

Only in joints in which because of the illness all securing ligaments and joint apparatis have been destroyed is it of great advantage to keep up excresse longer than usual. Thereby one obtains with the fatty transplant more secure connective tissue masses in the vicinity of the joint in the knee joint especially in the Nation and the point in the knee joint especially in the Nation and the point in the knee joint especially in the fatty in the point in the knee joint especially in the fatty in the point in the knee joint especially in the fatty in the fatty in the fatty in the fatty transfer in the fatty in

(plaster

pressure on the fat) is left on at least 4 weeks—
16 weeks on the knee and hip only 2 weeks on
the finger joints. Then follow for 2 weeks
active motion and muscle massage and after
that systematic passive joint evercies and

cautious exercise with apparatus are begun weight bearing follows in leg joints at the earlie tafter 6 weeks. I have never permitted weight diverting apparatus to be worn be cause they are too expensive. It suffices that the patient walks with crutches. Taylor's

different

the longest time Treatment should be continued until in addition to good mobility and weight bearing a normal gait is attained. This is essentially concerned with the musualature which will be discussed later. The Price joint is capible of complete function after one half year. Also after the conclusion of treatment the mobility improves, further

when he was forced by a sudden storm to run

been operated upon ascended a Bayanan mountain and after that had much greater mobility and strength in her leg

In selecting cases above all one should exclude children the weak willed run down and nervous patients likewise all patients with joints with marked muscular atrophy and scar tissue formation in the skin and soft parts. It is evident that one should not undertake mobilizing operations on paralyzed legs. A few examples of the different joints are given in the illustrations (Figs. 18 to 24). For the

attained

In cases marked as questionable (?) are either too recent for judging or because of death due to some other cause are not satis factory for judging relative to the joint (—)

A total of 300 cases of large joints bave been operated upon of which 242 are very good or good 34 are failures and 24 are questionable The cases are grouped according to the in

dividual joints	6 +	13-	6? 2?
Flbow Wrst	12+	0- 1- 6-	? 0? 14?
Sl ulde A kl Il p	62+		

In general the indication for operation re annective tissue and bony

worked out along the lines of the operation in the case of the for ankylosis a corresponding operation with fatty tissue insertion for congenital hip joint dislocation A similar operation is performed for medial fractures of the neck of the femur and pseudarthroses for severe cases of cora vara and changes of the joint cartilage in Perthes disease The different hip joint cases are classified as follows

```
C ushot " und with st ffen
Cent all
Iraci res i neck i f mur
                              11+
   and p e darti ros
   g n 1 l luxatt
 Cong n tal lu u n
   d en
            nd thrt d
  Co a
```

In severe cova vara and arthritis deformans I have removed the entire cartilage from both the femoral head and the acetabulum and completely taken away the capsule which as a rule has proliferated after the joint has been laid open exactly as is seen in the illustration (11g 14) for the ankylous operation Rela tive to the illustration it is to be noted that only in the very first cases was it necessary for me to cut through the small pelvic mu cles (musculus obturator internus prinformis and gemell) and suture them together In most cases I succeeded in luxating the femoral head satisfactorily without doing the separa tion described by Murphy In arthritis de formans and cova vara after the head of the femur has been made smaller and shaped

T have described " fracture of the femoral bead and pseu darthrosi After the joint region has been laid open as in the operation for ankylosis the stump of the neck is luxated and the head which as a rule is necrotic is removed. The acetabulum is smoothed the stump of the neck is rounded off by fraising covered with fatty tissue and placed in the acetabulum So far the operation 1 like that for ankylosis However in order to prevent luxation of the shortened upper end of the femur a bony wall is prepared on the upper edge of the acctab ulum After the periosteum has been raised pocket like upward a corresponding portion of bone is fastened with a nail at this location in the pelvis close above the upper edge of the acetabulum It has in the periosteal pocket and consequently grows fast quickly forms later a good bone shelf for the shortened head of the femur I have usually fashioned this piece of bone from the removed head of the femur In spite of the fact that this opera uon was on elderly people 50 to 60 years of age it has given excellent capacity and mobil ity I consider the operation indicated (1) in femoral neck pseudarthrosis and (2) in the 67 so called medial fractures where the head is broken off close to the periosteal attachment and consequently callus cannot form In early cases of this kind operation is undertaken at the earliest 3 weeks after injury

I will mention in passing that at the Surgical Congress in 1918 I reported the use of a bone peg for fastening the neck of the femur in fractures and in pseudarthroses but I have not used this method for a long time because the transplant is not always able to find bony union in the atrophic tissue of the head and because secondly the connective tissue of the pseudarthrosis space may erode the peg to the point of breaking it Later practically the same operation was recommended by Albee

In very severe cases of congenital hip joint and Delbet dislocation in adults I no longer make a new acetabulum but make a bone cleat on the pel vis close above the head with a piece of bone from the trochanter major following the method employed in fracture of the neck of the femur. However if it is possible to draw the head down by extension. I prefer the rad

real operation. The technique may be described as follows. After laying open the hip joint with the flap formation described above an acetabulum is prepared at the proper place and the head is made correspondingly smaller and rounded off. Thereupon it is placed in the acetabulum after being covered with fatty tissue. In hip joint dislocation the trochanter must be transplanted downward with the leg in marked abduction position so that the

tient operated upon was 48 years old. On the other hand great difficulties have arisen in the after treatment of children as 15 the case with all operations on the hip joint during childhood Only in a few cases when the exercises could be carried through and continued by intelligent parents at home were good

results obtained

Later examination of hip joints operated upon has shown that in dislocations in adults considerable time passes before atrophic gluteal muscles are in condition to hold the pelvis horizontal when the patient stands on the leg operated upon. It has been found further that among cases in which this gluteal function was obtained after operations on the hip joint for other reasons so that not the slightest deviation of the body, toward the side operated upon could be noticed on wall, and the power of the glutens durantshed in several years and the so called Trendelenburg symptom set in again. Being of the opinion

that the glutaus medius becomes atrophic

accessory operations The first is as follows after securing the trochanteric process with glutarus medius the musculus tensor fascialate is separated from the fascia late and is placed downward over the trochanteric in sertion and sutured fast to the thigh. If the glutarus medius is markedly atrophic I bave secondly huilt a similar 3 fingers wide flap from the posterior portion of the glutarus maximus and bave forced it from behind for ward over the point of fastening of the tensor fascial right sutured it fast.

These accessory operations were devised years ago when I operated upon a woman of 20 years with poliomyelitis paralysis of the gluteal muscle on the left side (Fig 25 hefore the operation) The result was brilliant Figure 26 shows the normal position of the pelvis 4 months after transplantation of the tensor iascize to the thigh underneath the trochanter In spite of the fact that a paraly sis existed in the right foot which necessitated tendon transplantation normal motion was obtained and the muscles were so strong that the patient could take part in sports. The patient recently was victorious in a polo tournament As in the last 10 cases in all operations on the hip joint I will therefore carry out regularly the transplantation of the tensor fascize latze and when necessary com bine it with a plastic from the glutieus maxi mus

L er Sug

RESECTION OF KIDNEY FOR CALCULOUS PYONEPHROSIS

BY H M RICHTER MD FACS AND I M ZIMMERMAN MD CHICAGO

SURVEY of the literature reveals that con D ring the perat harm ringe we pre-ented by

was conserved

bladde O ystoscope e aminat thre was sen mod rat if imm to fithe ill id disabecult n. I then membrane A cath trap seed. I no both sies U neft gfrom the left a blood ung d

Lei Ur ein 3 m nutes Uine in n tam tes Phth 1 1 m

In this case there was a partial pyonephrosis due to stone in which one half or two-thirds of the kidney was gros ly normal and able to maintain a good excretory function. The lower pole of the kidney however was so completely destroyed that leaving it behind appeared inadvisable Conservative resection enabled us to remove it

without sacrifice of the healthy portion There are but few cases on record in which par tial resection has been employed in this condition H H Young in a recent article states that a brief review of the hterature shows but I other such report Since that time Mur ell has reported a

in selected cases conservative resection may be more widely used

f om b serv I H M Rich er Wesley M mo I Hap tal

7

URI TEROCELLE CLINICAL SIGNIFICANCE AND PROCESS OF FORMATION

NCE evistoscopic evamination has be come a routine method in urological practice ureterocele has entered into

present relatively frequent. The hierature on this subject is however rather poor particularly as far as the nature of the lesion is concerned mainly because the opportunity to make a through anatomical investigation on postmortem specimens is really a matter of chance.

Ureterocele is a term which should remain in medical nomenclature. In my opinion it expresses in the most evact and scientific way the pe ultri features of the lesion to which it refers. Besides it is short and catchy. The other term cystic dilation of the end of the ureter used by many lacks these qualities and in addition is physiologically incorrect.

With few exceptions the discussions of the inve tractors have been quest monotonously focused on the question whether ureterocele is congenital or acquirted. This seems to me rather an unimportant question massimich as it neither throws any light on the real nature of the lesion in or helps in suggesting any under standing of the mechanism of its es oblition.

On the other hand the assumption that stenous of the onfice (congenital or acquired) is the only cause of ureterocele seems to me quite unacceptable since it doe not stand the most obvious criticism

Lavandera reporting 4 cases and trying to not e both

ornices in a man whose unnary system was otherwise normal. The finest uretene catheter or bought would not pass through the onfices

True but the man to whom Walker refers had no trace of ureterocele which would prove a fone case could prove any thing that we have cases and many of them of congenital steno sis of the onlices without ureterocele. And note that Walker's case was not that of an infant, which would also prove that congenital stenosis of the ureter may be present for years and years up to adult age and not produce a ureterocele.

What really counts is the fact that every urologist could testify that small almost punctiorm orifices are frequently encountered and that they are merely considered a physiological variety. On the other hand pathological conditions of the bladder may so reduce the chiber of the ureteral meatus as not to permit any attempt at catheterization. So that should the stenosis of the meatus con stutte the ectologic basis of ureterocele this would be a firt more common lesion than it

really 18 If we consider the functional value of the ureteral meatus we understand at least theoretically why it should not necessarily be of the large caliber type. In fact it simply represents the opening of a mall canal to carry liquid product a product adjustable to ans caliber provided a us a tergo propels it When we consider the caliber of the lym phatics or capillary blood vessels or of the uriniferous tubules of the malpighian pyra mids we realize how generous and provident was nature in constructing the opening of the ureter Beside the ureter in all its extension is an active muscular apparatus that continu ously and rhythmically performs its expelling function on the unnary contents so that if the mu cular waves of the ureteral walls could only remain unimpaired the urine would be driven down uninterruptedly no matter how small the meatus

812

Let me say here incidentally that in 2 of my cases I was able to introduce a fulgurating electrode and No 5 eitheter in the cavity of the ballooming uriter without changing the size the shape and the working of the uretero colo

This eventually makes us tomas of o fer

ureteral stricture. I sit the startum in in a such that is to say as a mechanical impedition to the free drainage of the unite or is it a functional disturbance of the rhytamical form tall is of the ureter.

to some

distal to the tie becomes nerver at first and finally disappetrs completely. Evid nily this is due to the culting oil of the muscular returner to it the ureteral wall so that if we impand

wairs of the uretern wan we lesson analogous so fix as the remote effect is concerned to that produced by he takes

of the peristaltic movement

from a complete parely to a more or less pronounce I my airment of the physiological function of the wreter

The immediate consequence > hat when the urman flow renches point if it is of where the lesion i lo ated it will meet a come the a some

> fys So Doint f

or sesses an original velocity (ii) according to I rotopopow's experimental results this

will suffer a relative diminution and will be n-1 n-2 n-3 a it d scends to lower levels. These units of rest tance nell inevitably proof in would ton and states in the upper notion and ultimately dilatation.

Apparently we have here I repetition of the p weess which takes place in the dilatation of the heart when peripheral resistance to the myocardial impulse (arternosclerosis hyptr

tension etc.) is abnormally increased.
If a creagine another lesion rising at point

Now let us transfer 1 to A and D o D he A would represent a lesion involving

exquires a condition o se son AB which will lead to a dilatation with the typical characteristics of unitersecte

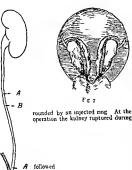
* m mount to report 2 cases by " oseressen

the that the the intransural portion are more than in the upper portions hable to give the sact als sarculation which we call a tereorie In fact there the fonguedinated by the two separate conditions.

uncteral range and treatment from the history limit of the trigione. So that when the uncer enters the brighter e-rity via imply constituted by space or what fives covered by the muton a via nother word the uncteral wills here are extremely weakened and prone to distance.

Here ar the cases best abed by Wosh ressen

ears be



B. Postoperative cystoscopy showed no gaping of the uretery opening. It was small and did not contract. The author comments of the ureter but only a crushing by scar that there was no real rupture of the ureter but only a crushing by scar the ureter but only a crushing by scar the susse without changing the lumen. The contusion caused a paralysis of a great part of the ureter. At first the unnary obstruction was due to the constriction by a harmatoma and ordema. As these subsided the paraly zed part gave rise to an immovable column of urine formum by drone/blross

The second ase as that of a man who was shot in the left renal region. Rad ography showed an obstruction at the second lumbar vertebra and be low it a greatly diated ureter. Operation showed renal scars destruct on of the peritoneum of the

Woskressensky concludes by affirming that it is possible that dilatation of the remaining section of ureter may occur in these cases when the pathological kidney process involves the gangha previous to operation (as after extensive penneithrit a large pyonenhrous



and after removal of a large segment of ureter when branches of peripheral nerves are in ured)

We may conclude from these 2 cases that nervous besons either ganghom or perpih eral involving the ureter must product a more or less appreciable impairment of the ureteral penstalsis with the illimate effect of a more or less atomic condition of the ureteral walls or in other words a tendency to dilutation would result which would be more or less notable according to the normal or abnormal condition of the caliber of the ureteral segments distal to the determining lesion.

Another important point is that these 2 cases prove clinically what Protopopow had already proved experimentally

Now let us consider briefly the anatomical relations of the vesical portion of the urter its structure and the pathological involvement which it is liable to undergo and we will be able to comprehend clearly the genesis and the clunical value of uretrocele

In the male the wreter (Fig 7) after having encircled the pre- ampuliary portion of the vas deferens reaches the base of the bladder at a point where the middle third joins the superior third of the seminal vesicle. It goes between the anterior ispect of the seminal vesicle and the bladder will and finally pieces the latter with its last section the intramural segment. In the female the wreter goes through the broad ligament and finally passing through the third ligament and finally passing through the third they are the section will be set to the property of the third they are the section that the section is the section of the work of the third that they are the section of the work of the work of the vestor signal connective these desappears into the walks of the bladder.

These anatomical relations are strikingly demonstrative and it is almost impossible to explain how an inflammatory process of the seminal vesicles particularly the sclerotic

relt

This eventually makes us think of other possibilities which so lat as I know max may cot attracted the attention of the investigation of the particular subject. What raises the unmany stays in the renal polytic in cases of uniteral stricture? Is it the stricture it if as such that is to say as a mechanical impleshment to the free drainings of the uniter it a functional disturbance of the hyphomical constal is of the uniter.

This is my opinion is a vital question. From the knowledge of physiolo y we po so at present we may infer that the ireteril perstals is begins from the pelvis and goe to an the think of the vesical and the run-

---- (T ----

di tal to the tie bicomes weaker at first and

dimage the peripheric ners ous elements v hich conduct and regulate the muscular peristalite wates of he we always us will have a beam analogous of far as the remote effect is concerned to that produced by the type.

of the penstaltic movements which vill to from a complete parilysts to t more or less pronounced impurment to be phy tological function of the units.

The immediate consequence is that when the urinary flor reaches point A (lig 6)

that if the amount of urn e sp to point to loss in an original velocity (n) according to Protopopow's type imental result. Its

will suffer a relative diminution and will be n-1 n-2 n-3 as it descends to lower levels. These units of reastance will inevitably provoke accumulation and sta is in the upper control and it illustrately dilatation.

Apparently we have here a repetition of the proces which takes place in the dilatation of the heart which is inhered resistance to the myocardial impul (artenosclerous hyper

ten um etc.) is abnormally increased. If we magain anomal is some and a point B (stone or stricture) the segment A B will ten be a title user stage of dilatation (if not we are a clavorable on) as the upper vection on account of the augmented resistance to the unwards flow plus the atomic condition per se

determined by the upper lesson A. Now het us tran fer A to A^{i} and B to B. Y^{i} to X^{i} X^{i} and X^{i} to

urcterocele

I om going to report 2 lases by Woskrussen
sky which; vill give 2 striking clinical illu tra
tion of this view. But there I want to empha
size that the peculiar features of the ureteral
musculative in the intramural portion are

fibers divide into two separate bundes us

toward the urrival opening forming are lateral limit of the trigger S of that when 's urrear ent er è ce b'ad 'r cas 'v it' arrab, constituted by spaces opening files covered by the more of selection of ste urreletal walls here are extremely "seake and aprone to dilatation."

He care the cases described by Woskressen

h

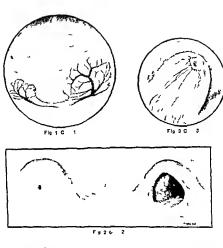




Fig 4 C se 4 i ft g ph se



Fig 5 Case 4 d fati g ph se

their recent study of vesiculitis say A seminal vesicle once invaded by pathogenic

ureter or some interference with the blood and nerve upply to the weeters at this point. The

run anteriorly to the upper part of the vesici and not infrequently must be dis ected free due to adhesions and pen ureterius and peri vesiculitis

acute and chronic cellulius and pentituis a around the last uniteral portion makes ont wonder who pen unclenius should be less common in the female than in the male

On the other hand aside from the inflam matory processes so frequent in the female conditions far more important that is pres-

must take place in the muscular fibers of the ureteral walls. As for the nervou fibers and rangha we know from the tese trehes of Satam

The network of the newe there has quellarge rhombout me hos which are placed parallel to the uniteral and grow thefer toward the industrie making a vell diveloped

network between the outer fibrous and muscle layers. Some of this enerve fibers enter up parenti. In between the outer longitudinal muscle fibers. They are compo ed of meduliated fibers cheefly with some of the non-meduliated variety. At the point of division or sometimes in the course of the nerve fibers there are formed many ganglia in the coat Cenerally Large ganglia containing over a hundred cell are formed only in the lower part of the unter-

in that portion must diminish or disappear to tirely giving once more a clinical analogy of f rotopopon a experiment. The extension of

pto ess (of seminal vesicles) may niva bludder wall producing a basic cystims or togonitis—which by involving the ureteral

m atus may easily cause stenous. Here we have an atomic or paralytic ton dition of the ve call end of the ureter plus at teno is of the ureteral meatur. In a say we have all the necessary anatomical and plus pological deviations that had to the for nation of ureterocele. In fact close discrimination of ureterocele. In fact close discrimination of ureterocele. In fact close discrimination of ureterocele of the ureteral antifice alone it most a determining factor of ureterocele otherwise ne could not ruplan why in many cases the meetus is large enough to permit easy sounding and cathefurnation. Should a meatus of

m nor 1

this kind be considered the primary cause of ureterocele before having ureterocele we would have positive unmistakable symptoms of urmary stasis and pelvic dilatation but this is not the rule Walker says The lumen of the ureter may be narrowed or completely blocked by a valve or congenital stricture As a result either hydronephrosis develops or atrophy of the kidney ensues Rarely the ureter immediately above the stricture dilates without distention of the renal pelvis

This statement is not only clinically correct but it corresponds also to a postulate of a law of dynamics by virtue of which if the hy draulie pres ure of the urinary mass should increase for some reason (stricture or stenosis of the orifice) to such an extent as to deter mine dilatation in the pelvi ureteral tube the section of this tube which would dilate first and most would be the pelvis first because the pelvis is the section of the tube which has a greater circumference with a resulting great er total amount of back pressure and second because anatomically the pelvis compared with the ureter has a smaller muscular re sistance (Testut)

So that if notwithstanding this the portion of the ureter which dilates is just above the narrowed meatus or in other words the most resistant one at means that in this very point a pathological condition must exist which lessens its normal resistance and this condition which leads directly to ureterocele is nothing more than an atonic condition

An equally important reason for discarding the idea that the pathogenesis of ureterocele hes exclusively in the stenotic condition of the meatus is that if we should try to treat ureteroccie simply by dilating the ureteral meatus we would meet with the most discouraging failure. This should be decisive otherwise the clinical principle that cure comes after the removal of the causa dedecta the contracted me tus was solit with an incisor and a No 6 catheter inserted and kept in situ for 24 hours Cystoscopy in January 1915 showed a

About 6 months later the patient real peared com plaining of a recurrence of the lumbar pain and cystoscopy demonstrated that contraction and urcterocele had recurred. The patient was again admitted to the hospital for the same condition Cystoscopy revealed recurring contraction of the onnce with cystic dilatation behind it. The cyst and the meatu were incise i several times and a large catheter was inserted for 24 hour

The eventful Odyssey of this case is most instructive It plainly demonstrates that when notwithstanding repeated splitting of the meature so as to admit freely a No 7 catheter ureteroccle takes place again and again it is no longer permissible to speak of stenosis of the ureteral onfice as the deter mining cause of ureterocele. The author seems to give special weight to the re con traction of the splits in trying to explain the recurrence but I think that from a rigorous physiological point of view there is no such phenomenon

continu case he muscul mainec

muscul

did no when

mensed u sue are in normal physiological condition In other words the splitting gave only a virtual not an effective dilatation of the mertus which despite re peated incisions and notwithstanding the con timuous gravatation of the urine in the saccu lated ureter remained helplessly refractory to



a gentle digital pressure on seminal vesicles one could see a continuous eructation of purulent débits from both ejaculatory ducts. The urcletorele has been entirely destroyed by fulguration and ureteral calbeterization. Sediment from the right urme was

negative
CASE 4 February 8 1922 P C 40 male mat
red had h d to attacks of generators 12 and 4

years ago

gated firm and nodular. It was not possible to follow and circumscribe their surjetior limits and the himpinal palpation gave the finger a lar sensation of semi fluctuation through their thickened vall

no morphologic 1 elements of any importance with the exception of some oc a n hall engiatrocyt ext lently of traumatic nature 1 fulgrating sound No 4 was use ted into the cavity of the ureteroccle and it was totally destroyed

The prostat c urethra showed the usual features of a chronic posterior urethritis with a very much deformed and ordematous verumontan im and several large prostatic ducts open ng into the sulci laterali

Summing up what I have been saying intercorcele would be the result of the etwo conditions first a lesion at the end of the extramural portion of the ureter and econd a more or tes narrowd untertral orince. The ureteral lesion either from without (pen uretenits staumn etc.) or from without (pen cuil) endo ureternits etc.) acts on the nervous or muscular elements of the ureter with the ultimate re uit of aminhiating or diminishing the ureteral peristalsis in the distal

pheral re 1 tance from the narrowed mentuwill ultimately lilate. The dilatation should be in inverse proportion to the size of the

orffice or in other words greater if the ori fice is very narrow smaller if the meatus is relatively large

I or the sake of clearness I want to represent the form into no furcterorcle in a diagram by which if the conditions mentioned above are acceptable the whole process will be easily

and fully understood (I se 8)

The diagram illustrates the behavior of the intramural portion of the ureter in Cases 1 and , in which we have a complete ureterocele that is a uniform eccentric dilatation of the whole ureteral wall covered internally by ureteral and externally by vesical mucosa and emthelium gradually adapting themselves to this new anatomic condition Case 3 (Fig. 3) shows a characteristic impressive cystitis with marked thickness of the mucous membrane This is responsible for what I would call an anomalcus ureteroccle on the right side mean a ureterocele which being covered by an adherent and thackened naucous membrane cannot freely expand and balloon out like the usual type of ureterocele and lacks its trans parency Likewise on the left side one cannot help thinking that there we have a tentative or abortive type of ureterocele. In fact the massive collar surmounting the meatus i undoubtedly formed by the muscular bundles of longitudinal fibers ending in the interureter ic ridge and in the lateral edites of the ingone Because of the intense regressive cystitis at that point there must have been an infiltration of the areolar layer to an extent not to permit the excursion of the bladder mucosa on the relaxed ureter so that while the ureteral musculature would tend to lag into the vesical cavity them a and tofirmly

cated in the depth of the cavernou cavity. In a methaphenical way it would be a strait jacket ureterocele

Case 4 (Fig. 4) shows all of a treterocele with certain peculiarities worth noting. In fact the inflating prace prices beautifully that uneterocele has developed at the expense of the potentor portion of the uncertain wall only the antunor wall remaining in perfectly nor mal condition. This would tend to prove that a unreterocele may affect only part of the

any active dilatation which would follow except that the conductive faculty of the pen staltic movement of the walls of the ureterocele had entirely disappeared. No wonder then that this patient was cured only after the entire body of the ureterocele had been re moved

A report of my cases follows

tube culos

ı

normal. The first urine was gros ly clear. Rectail examination showed a slightly nile g d prostate

The urine from both kidneys showed only oc

casional leucocytes

CASF 2 A C 52 fem le m rued multipara

exam nat on At the bimanual exploration the uterus was found notably and abnormally nl rged ventrofixed nd That poptic ulter is characterized by the pre-ente of a hypersecretion of the gasting junce is generally acknowledged although whether or not hyperacidity is a can attend cator is questioned by may Hyp rection of the thrond hormone is the central factor it not the actual cause of hyperhypoulsm

the co

even if not all cases of peptic ulcer are associated with hyperacidity the relation between the two is sufficiently frequent to be more than incidental. Wheth I the hypersecretion when present produces the ulcer or the ulcer the hype a cretion is till a matter of argument While the consensus of opinion tem to be that hyperacidity is first present it never theless would seem that the ulcer once tormed without doubt maintains the hyper secretion thus creating a victors circle with its attendant clinical symptoms and patho lorical manifestations. In other words hyper acidity prepares the way for the action of whatever econdary factors usually of an infectious or toric nature may be at work in the pathogenesis of chronic peptic ulcer

Incl. and Mann and Wilbamson by the coll observations and by exp minit appear to have proved that whatever its causative value hyperaedity is undoubtedly a concentant of piptic ulerc and in his address before the American College (1 Surgicons in October 1924 Devine in a valuable discussion of 4x the surg ry lays strong, empass upon the primity importance of the acid factor in the initial causation and in recently concentrated the control of the control

sociated with gastric uncer and subgroup (b) would corre pond to a diminished function of the sympathetic or an overaction vigous and to the pathology associated with duodenal ulcer. In the latter condition the diodenium

would be exposed to any injury likely to re sult from the action of the gastne acidity while the stomach would suffer in the tormer

Let us carry further the analogs between hyperacidity and hyperthyroidism. Both elect young adult life both flourish in the at mosphere of stress and striving both are in duced and are encouraged by overwork by worry by focilinfection by auto intoxicition both are increased by a protein diet both in duce a change of personality, in the presence of each the patient is improved by a holiday

and to relapse, neither is prevalent among in fenor races among the indolent or dullards of higher races or among degenerates morous or the insane both flourish in compelling ambitious conscientious personalities both are prevalent among individuals of keen desures and internal struggle in general the in cidence of both is highest among those individuals of the white race who are carrying the burden of exhibitions.

In only one characteristic is there an apparent antithesis between hyperthyroidism

is approximately lour in males to one in females

To what extent may this analogy between hyperthyroidsm and peptic uleer serve as a guid. In the choice of treatment? In both hyperthyroidsm and pept ealers the results of medical management range from no relief to remain trecovery the results in the inductal cases, depending upon the success of the medical advision in imparting and of the patient in receiving a re-education—a new point of view regarding the management of his life.

Perroc In

the results of surgical treatment as of medical treatment range from no reinel to permannan tecover. In surgical treatment also the results depend both upon the success of the surgeon m making the correct decision as to the type of operation in the individual case ureter not a total but a partial ureterocele resulting

This in a lesser digree. I have been able to find in quite a few occasional cystoscopic examinations. On the different aspects of the intramural section of the ureter were light bulgings with the characteristic inflation and deflations of urcterocele. I have records of z cases of renal tuberculo is with bladder and ureteral involvement in which cystoscopic findings of this kind were very evident but against them I have several other cases [all men] in which chronic pronococcic infection men) in which chronic pronococcic infection

ureterocele by fulguration is the method of

choice Ablation through suprapubic cystot omy advocated by several authors is to be considered a surgical abuse unless for spicial reasons it should be absolutely necessary

BIBLIOC PAPILY CLAM'S HAR J OP 1 t m nt I se excults J U 1 t m nt I se excults J U 1 t m nt I se excults J U 1 t s f urel roc J Urol & C ta R por I s f urel roc J Urol & C ta R por I s real t roc J

S
6 WALER TOM Cr. 10-U TYSTR TY Q ted
by La 1 ca
7 WHITT F W d Cr. WOHL, B H S minal
c cult i J Urol i N 4 Urol
8 Wesk Es Ry (/ t.c. i Urol po

HYPERTHY KOIDISM AND PLPTIC ULCER-IN ANALOGY

BY G N CRIIT NID t 1CS CLEVELA D O MO

ESPITT extensive clinical and experimental researches by our ablest sur geons pathologists and physiologists the cause of gastne and duodenal ulcer has not been securely established. That the cause of peptic ulcer is not infection alone nor horombous alone nor hyperacidity alone nor autodige tion alone is evident from the facts that it occurs more commonly in males than

Who then are most disposed to have peptic ulcers? Physicians I way ers binkers bus ness men individuals who are in the midst of intellectual and emotional stress and also laboring men who work under the constant urge of worry on behalf of their families

among the masses using similar diet ulcer still is more commonly the lot of the male than of the female of the young than of the old

The incidence of peptic tilect bears no relation to climatic diseases although the tileer itself is affected by the season being worse in winter than in summer. It is affected also by the strict of mind being mide worse by worry and aniety improved by compliaence and a sixte of negativity. dence of peptic ulcer

This kinetic aspect of peptic ulcer immediately suggests that most kinetic of diseases

and more vital problem concerning pepus, uleer which still awaits its final solution name, by the choice of treatment for up to the present time there is no agreement regarding the preferred method of treatment whether it should be medical exclusively or surgical exclusively and if surgical what procedure shall be employed.

That peptic ulcer is characterized by the presence of a hypersecretion of the fastire junce is generally acknowledged although whether or not hyperacidity is a causative factor is questioned by many Hypersecretion of the throud hormone is the central factor if not the ictual cause of hyper thyrodism

Although Smithies and others deny the co relation of hyperacidity and ulcer neverthe less we must agree with Deaver that even if not all cases of peptic ulcer are associated with hyperacidity the relation between the two 15 sufficiently frequent to be more than incidental Whether the hypersecretion when present produces the ulcer or the ulcer the hypersecretion is still a matter of argument While the consensus of opinion seems to be that figureracidity is first present it never theless would seem that the ulcer once formed without doubt maintains the hyper secretion thus creating a vicious ircle with its attendant clinical symptoms and patho logical manifestations. In other words, hyper scidity prepares the way for the action of whatever secondary factors usually of an infectious or toxic nature may be at work in the pathogenesis of chronic peptic ulcer

First and Mann and Williamson by this cal observations and by experiment appear to have proved that whatever its causettie value, hyperacidity is undoubtedly a concentant of peptic uter: and in his address before the American College of Surgeons in October 1942. Devine in a valuable discussion of gastne surgery [ays strong emphasse upon the primary importance of the acid factor in the initial caussition and in recurrences of gastne ulters. Devine suggests that disturbances of retainion posture as a result of sympathetic influences, emanating from the strain of modern life may be the

would be exposed to any injury likely to re sult from the action of the gastric acidity while the stomach would suffer in the former

Let us carry further the analogy between hyperacidity and hyperthyroidism elect young adult life both flourish in the at mosphere of stress and striving both are in duced and are encouraged by overwork by worry by focal infection by auto intoxication both are increased by a protein diet both in duce a change of personality in the presence of each the patient is improved by a holiday with complete change of environment by the elimination of worry and anglety both peptic ulcer and hyperthy roidism tend to chronicity and to relapse neither is prevalent among in ferior races among the indolent or dullards of higher races or among degenerates morons or the insane both flourish in compelling ambitious conscientious personalities both are prevalent among individuals of keen de sires and internal struggle in general the in cidence of both is highest among those indi viduals of the write race who are carrying the burden of cavalization

In only one characteristic is there an ap-

is approximately four in males to one in fe

To what extent may this analogy between hyperthyroidism and peptic ulcer serve as a guide in the choice of treatment? In both

the medical advisor in imparting and of the patient in receiving a re-education—a new point of e and document of the patient of the second of the patient of the second of the patient of the second of the patient of t

sociated with gastric ulcer and subgroup (b) would correspond to a diminished function of the sympathetic or an overacting vagus and to the pathology associated with duodenal ulcer. In the latter condition the duodenum

the results of surgical treatment as of medical treatment range from no rehief to permanent recover. In surgical treatment also the results depend both upon the success of the surgeon in making the correct decision as to the type of operation in the individual case

and in the willingness of the patient to submit not only to the surgical treatment presented but also to a strictly controlled regimen of life for a sufficient period after operation

Just as the 'th road accretion may be restricted by the excision of a sufficient amount or gland so hyperacidity may be reduced to normal acidity by the excision of a sufficient amount of the acid secreting pixel of he storia h. In cases of hyperthyroidism legations give temporary sometimes permanent relief. In cases of chronic gastic ulercrostomy gives temporary some times permanent relief the establishment of the cure in each case flower being defendi

ent in part upon the institution and observa

00 06 0 0 0 4 60

moval of a ufficient amount of the hyper secreting tissue the operation being supple mented by the climination of focal infection and of auto intorication and by the estab hishment of a specially planned hygienic regitor of

The analogy is the negate aleer and hype hyper lyes a trabably not the only and sy that wage to described. Since in the arithal methan, is a hoggen bears an essential relation to each other organ it follows that every studiulus that affects the organism as a whose will also affect each or gain in a specific manner. In certain in tarces

matic

Another basis for the analogous responses of the this rold and of the stomach to abnormal kinetic drives in particular those which are

non we found in our laboratory that emotional stress increases the adrenalin output and in more recent researches we have found that whereas adrenalin increases oxidation in the brain it infibits oxidation in other regions of the body in particular within the gastrointestinal tract. To the extent to which gastine and diadenal modulity is decreased or inhibited to that extent will the process of alkalinization of the acid secretion of the

tormation

Hyperthyroidism has been all but conqueted. It is true that there exists some can triversy as to the method of choice for the re-

of opinion exists regarding the method by which the amount of secreting its up in the stomach shall be reduced in case of peptic ulcer. As we have stated medical treatment

stated in certain cases go tro-enterostomy may give permanent relief but in general as Mornihan and Devine have stated the ef fects of gastro enterostomy also are but tem ponzing Sleeve resection critiple the moulity of the stomach Cautenzation substitutes a burn and a scar for the existing ulter but doenot de rease the icid secretion the cause of the nicer. In the case of ulters of the lesser curvature it is difficult to see how my loroplasty can be more effective than the removal of the thymus in a case of hyperthyroidism More over in every case of ulcer of the stomach the possible relation of ulcer to cancer must be considered and the method of choice should be ore which would avail if the ulcer were actually at my individ grancy

I to m to a fastered and Haberer have pointed the way to what in view of the results and of the analoseis which we have drawn above would appear to be the logical technique for the surgical treatment of stomach ulder the resection of half of the stomach including

cent and that by this change of objective namely from excision of the lesion from dramage from alkalimention to the fundamental underlying cause of the condition namely he hap to ton their clinical re sults have been constantly improving addition not only does this procedure control the hypersecretion but it also removes the common site of cancer of the stomach. The wide opening in the jejunum would appear to be an obj tion to this ridical procedure but the can be overcome by a modification in technique whereby the large opening in the stomach is evenly adjusted to the small open ing in the jejunum. The method by which this is accomplished will be shown later by slides

Baffour his recently reported that in duodenal uter gasto enterostom; combined when necessary with existion of uter givey of per cent of satisfactory results and a mortal ity rate between 1 and 2 per cent in gastricuter it combined as a routine with cautery or kinle existion of the uter eye per cent satisfactory results and a mortality rate between 2 and 5 per cent are orotained. Our results compare favorably with these It may be added that the Finney and Horstey types of operation for

duodenal ulcer are even more satisfactors, but

they carry a slightly higher immediate risk " co es in which the ulcers are extensively adherent The outstanding problem which I am's to internist and the surgeon is the marked callous ulcur of the lesser curva In these cases we have alopted the following as a routine method of procedurethat any case of pastric ulcer in which a 570 "S o I weeks of medical treatment is not obtained be submitted to operation without furthe Jelas B au e as the probability of cancer development, the preliminary medical treatment serves to lessen the size of an ulcer and to educate the patient as to the proper diet and routine which will be required for a prolonged period after the operation Moreover the preliminary period of medical care and re t lessens he

By comparative secretory curve mide after gastro enterostomy gastrectomy and partial gastric evclusion at various distances from the pylorus Devine has shown that free

immediate operative risk

that partial gastric exclusion gives almost the same regurgitation and secretory curves as gastrectomy—that—the nearer the section

two cases of gastrectomy was there any evidence that the low acidity was pirtially due to a slight hyposecretion. This was also shown in one cale of even hypopartial castine exclusion.

The analogy to the treatment of hyper thyroidism serves throughout the whole period of surpical management that is shock and

of large amounts of water by morphine and by rest by a shockless operation under local anæsthesia and nitrous oud oxyfen anal gena infection is controlled by the technique and management and by the maintenance of the general resistance

After the operative treatment of gasting or duodenal ulers as after the surgical treatment of hyperthyrodism if any four of infection remain una used for their should be endicated we have made it a routine procedure to remove the appendix in all operations for nights uffer in order to assure the elimination of the possible focus. The teeth spines will ton sits should be examined and treated as indicated.

The basis for these analogies and for the evolution of the plan of management which has proved effective alike in cases of hyper tyroidism and of peptic ulter is based upon the specimes of my associates and mystlf

uncer or the stomach and duodenum and 326 for cancer. We are now studying our experiences in the fast series believing that we can de edop our print of management to a point at which the operability and mortality in Carre of pepts, where will be comparable to the operability and mortality in cases of hyper thyroid 5°.

CALCIUM3

BY CHARLES H MANO MD FACS ROCHESTER MINNESOTA

AM sure that we are satisfied that we so chose our hurthays as no enable we to be during he life, feet devades the most progressive period of the world's hit top. Truly this year, the tige of science and serice is metely a knowledge of the natural laws which are not my sterious, but most sample when understood as chemical plus sized and electrophysical plus ochemical plus sized and electrophysical plus have been rapidly infolded. Opportunity for rapid advancem it of science often tomes through war. Waffare to destroy life or to be previous and su tain it; part of the eternal struggle for existence. Such waffare always has and al

to most by te and to give publicity. Our great national danger however 1 not from enemies without but from those within our country who rass as entirens

nations have been created
The mod on physicist maintain, that all nature

istem con isting of a bundle of positive electrons as a nucleus or sun with negative electrons moving about it with intense rapidity. These range from one politive and one negative electron or plane, in bydrogen to innerty two in unanum. Each

Army Mellar Debatiman a gashibity and authority for prevention of disease. The various branches of science are associated di coveries in one branch becoming the tool of many willing workers in others. Man first called

electrons an example of natural politics. Jac

Shipman's 200-year old prophe y has a n Thoughts around the world will fly in the

Thoughts around the world will my in the

neighboring nations. The most night y t w

ras during the last fen decade in fact home than an all it previous in tory from the application of principles received by investigators of a few decades entire. The micro-cope metaposable the study and appreciation of the normal and decaded tissue cells totaly untranscroose permits the study of the in with a metapological permits the study of the in the first on is now

Scientific med in had made marvelou Prog

number of potential crimina words needs a opportunity or 1 ad riship. The world needs a largue Court where nations may complain as individuals to world court juviges with authority quieu ion to the court of the co

tten tol

hydrogen to created

ew book O ler 4

Plummer has shown that the thyroid renders the

was estimated in war time high proces at approximately 56 cents or the value of seven bars of soap enough sugar to fill a shaker sufficient uron to make an eight penny had potassum enough for one explosive cap enough lime to whitewash a chicken coop suiphur enough to take the fleas off a dog enough magnesia to make one dose to relieve a sour stomach and enough phosphorus to cover the heads of 2 200 matches. It is unfortunate indeed it is sheer waste in this the incotine age that man cannot generate a self lighter for cigartites.

Nearly 99 per cent of the world consists of but eight of the elements and their combinations oxy gen free or combined accounts for almost 50 per cent of the world and silicon for 28 per cent

The essential elements for plants and man are found in ordinary soil and by constant cropping with of

materials being daily replemshed by food Our blood is our inheritance its ability permanently to maintain an almost evact proportion of its minerals means stability or strength to resist the

easily age or more commonly between forty and sasty year at which time they tend to develop disea e common to their relatives such as rhea mattem heart disease or affections of the circulation or nervous system. Associated with the direct infective agent is the indirect one of a change in one or more of the elements of the blood and a lowering of trestance Calcium

Today we are interested in calcium. This mental constitutes 3 5 per cent of the earth it is held in solution in fresh water and in sea water long agost was more dense in sea water than two It was formed into calcium mud in layers in the Cambrain period of the world's history bearing deposited through chemical action of at least five kinds of algae and other allied byteria his the denitrifying bacteria of sea and soil and chain streptococt. The mot common organisms in the sea today are the bacterium calcs of Drew and p eudomonas calcs of hellerman and Smith which when associated with the proper physio chemical conditions sunlight being essential are

becoming tossils from molecular replacement of tissue cells with minerals. The layers of stone meant cessation of bacterial function for tem porary periods caused by muddy water or change of temperature and changes of density of

usua columnous bacterially created the carbon necessary being formed from decay of organic matter the physiochemical condition neces ary for 4 n

a od tom

which each day for weeks at a time is able to develop a heavy egg shell from the colloid lime thrown out in the coult.

CALCIUM1

BY CHARITS II MAYO MD FACS ROCHESTER MIN ESOTA

AM sure that we are satt fied that we so chose our birth lave as to enable us to live during the last few decades the most progressive period of the world's history Truly this is the age of science and science is merely a knowledge of the natural laws which are not mysterious but most simple when understood as chemical bio chemical physical and electrophysical phenomena. In all their many variations these truths have been rapidly unfolded Opportunity for rapid advancement of science often comes through war Warfare to destroy life or to pre

erve and sustain it is part of the eternal strugg for existence Such warfare alway has and al ways will exist In general the greatest destroy ing enemies of living things are more or less con trollable although invi tible The Great War advanced science along all lines but the advance ment of medical science has been especially appreciated by the public because of the unusual opportunity which the profe sion had to apply its knowledge. For the first time in warfare the Army Medical Department was given the respon sibility and authority for prevention of di ease The various branches of science are associated discoverie in one branch becoming the tool of many willing workers in others Van first called to hi aid the wind for sailboats and mill wheel Then came water power Later came a recogni tion of the value of coal and oil the stored energy of our sun in past ages. Progress is now being made in the control of electricity which new de velopments show to be fundamental The enor mous world of our forefathers is now as much maller as the rapidity of travel on land and sea has increased since their time Our birdmen bave conquered the air an I the couplet in Mother Shipman's 300-year old prophesy has come true

Thoughts around the world will fly m the world are naturally more and more interested in twinkling of an est the lives industries character and honesty of neighboring nations. The more highly civilized people are interested in the prevention of contagiou disease affecting not only plants and animal but also human life Fvery nation has its percentage of criminals and also a greater number of potential criminals who need but opportunity or leader hip The world need a League Court where nation may complain as individual to world court judges with authority Perl 11 lier bel Cl 16 gress f h Am

to investigate and to give publicity. Our great national danger however i not from enemie without but from those within our country who

With the comparative shrinkage of the world a pass as citizens greater interest i aroused in its structure. There are but a few elements undiscovered among the nmety two es ential elements in its makeup and om those already known thousands of combi

trons hell to ether and that the structural a n of the essential elements is composed of a solar system consisting of a bundle of positive electrons as a nucleus or sun with negative electrons moving about it with intense rapidity These range from one po time and one negative electron or planet in hydrogen to ninety two in uranium Each known element drop into its respective position in the scale according to the number of balanced positive and negative electrons Only a few years ag scientists would not accept the idea of transmutation of elements today it i proved and ac cepted. It may be difficult in some elements for the positive nucleus group to control the ne ative electrons an example of natural politics One may occasionally fly off like a comet or meteor and change its original material thus helium gas and A B and Cradium are derived from uranium and ultimately lead is formed from radium. With the a ray to bombard nitrogen a trace of

Scientific medicine had made marvelou prog hydrogen is created re's during the last few decades in fact more than in all its previous history from the applica tion of principles revealed by investigators of a few decades earlier The microscope made possible the study and appreciation of the normal and diseased tissue cell today the ultramicroscope permits the study of the in dividual cell and physiology of function is no v discussed in term of chemi try

Both plant and animal life require but fourteen of the elements these include the common gases ntrogen hydrogen oxygen carbon and also calcium and chlorine iron magnesia pho phorus potassium silicon soda sulphur and iodine al though but a minute particle of the latter is re quired for the normal function of the thyroid

cus 1

stones in the kidney urinary bladder or gall

bladder excepting pure cholesterin stones should call our attention to one thing that it is the

825

product of cell action

The world is in need of investigators on

lack the general knowledge to use them We need and will soon have far simpler methods of investigation. Who will enter the Hall of Fame by develooung such methods?

MASSIVE TUMORS DUE TO DIVERTICULITIS OF THE LARGE BOWEI

BY A PRIMROSE CB MB CM FACS TORONTO CANADA

T is generally recognized that tumors of considerable size may result from in flammatory reaction in connection with districultus of the large bowel In 1911 I published a sense of cases of Indammatory Tumors Producing Intestinal Obstruction. I wish to refer to two of those cases because in both instances tumors of extraordinarily large size disappeared spontaneously and after the lapse of 15 years both patients are alive and well. They have never suffered any recurrence of the trouble and they continue to enjoy good health. The cases are as follows.

CASE T W D

embedded (Fig. 1). Finding a line of cleavage the tumor was separated from the pelvic wall on the left side. The terminal portion of the appendix was embedded in this mass. The appendix was removed a day at time war and a com-

DI New Durham obstruction was

accomplished over a rubber tube as recommended by Ballour. He made an uninterrupted recovery and has remained in perfect health. The man is a fattner and has worked continuously on his farm since the operation 15 years ago. He is now 62

years of age and is still active

CASE 2 E B age 22 female consulted the
writer in November 1910 because of a lumor resembling sarroum firmly altached to bone in the
left ithat fossa 5 be had the appendix removed for
acute infection 5 months previously 5 he d's
covered the tumor 3 weeks before she came under
observation There was a slowly progressive

Indumm ry more t oducing in m and betracted I terret. M

guandin toxins are found in the blood. To read the therapeutic Interature popular I erayse distributed free by those interested in the sale of the - har lay

cur exhausted sous with a bear pop a sarport Calcium i depo ited in bones by cell action

and clands. In the control of tamorrhage in saundice when operation is essential calcium

once a day for days preceding operation a

m amo ~ ~ t? it not available

i bound ocen to der the rams in

may develop retany at the end or 3 nervous system being protected at birth and in the interval by the excess of calcium in the

the bone is a

1225 .me ads an i af

150 calcium is r duced below 11 b cub c centimeters of blood tetany supervenes an i

there is an excess of calcium in so tetany an alkalimity exists and lime is eliminated I still believe as I suggested at the Clinical Corgress of Surgeons of North America in the kida y 23 ua

- h h l'acteria sedimenteu lie a

1 1he d In utted

e- 1)

Occasionally the tumors are multiple and yet are amenable to similar treatment as in the following case where a excastomy was kept open for a year and then closed. Four years subsequent to operation the patient remains well and free from all trouble

CASE 4 R H aged 56 male came under obser

extensive diverticulitis

On April 18 1921 Inparotomy was performed A tumor was found in the lower end of the three colon hard firm but not nodular it was firmly fixed 7 mehrs higher up a second growth was found in the de cending colon about half the size of the lower growth this was also fixed. The

elevated plaque oval in shape is centimeter long of centimeter wide dirty white in color and elevated 6 m limeters above the surface. It looked like a secondary manifestation of cancer. It was

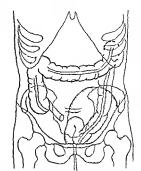
a caca c jostomy established. An

pat ent was extremely neurotic. Dails irrigations from rectum to excal anus were carried out with

ojnu was repaired

The patient has had no in ther trouble and continues to enjoy good health four years after the primary oper him

I do not advocate this method of treatment in all cases. I have found the Mikulizz operation most sati factory in cases of divertical



Fg Infl mm t ry tum r th re ! t bore in th il i sa nd i ling the sgm d fl ure of th colon (Pep od ced from i rmer pap r)

htts of the sigmoid with ob truction. In such cases it is possible to bring out the loop and to excise the affected portion of bowel with subsequent closure of the facal fistula. This no doubt as the ideal method of treatment in suitable cases particularly in view of the fact that cancer is sometimes engralted upon a diverticulitis Masson reports from the Mayo Clinic that 14 65 per cent of a senes of 116 patients operated on for diverticulities showed malignant changes at the time of operation Nevertheless conditions arise in which it is impossible to perform a Mikulicz operation as illustrated in the cases reported above Therefore it becomes a matter of

establishing an artificial anus and that a permanent cure may result therefrom

Therefore I is the stown Coll it pers (the Ny

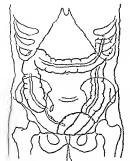


Fig Inflammatory turn in ol githe re-tosigm I ports n of th 1 rg bowel an licau ing obstruct a (Re-produ d from form r paper)

At the time I published my paper on in flammatory tumors of the large bowel 1 did not determine the ethological factor in their production. From the experience I have had in recent years I am consinced that divertic ultris is the primary cause of uch erowths

more if the freeal fistula is closed too early the tumor tends to recur as illustrated by the following example

CASE 3 Capt B aged 22 male On September 16 1918 Major George Wilson operated upon him

tion) be was ausmitted to the fin He was

fixed to the bone in the left in c loss, 1 into 5 a line of cleavage it was set at ted one he bone and w th n found to invol e the sigmoid color It

recurred it's ma unt absolute Flatus p seed dily but it was difficult to get a mo ement ?

bl ed ng cavity which wa p tat

econd time

h 1 t

sigmoid sexuse this to each operated so that she trace of the tumor slow j disappeared so that she has perfectly well 4 months after operation

This patient subsequently married and has two healthy children She is now 37 years of age and has enjoyed perfect health since the operation is years ago

veats ago

so-called Raynaud type of disease This at

have not been particularly amenable to other forms of treatment operative or non opera

an interest that has lain dormant since the days of the artenovenous anastomosis or reversal of the circulation some to or more vears ago

This procedure as will be recalled gave rise to a lively discussion and much speculation both as to its feasibility and as to its value in the treatment of the painful vascular disorders of the extremities for the relief of which it was suggested. A number of the operations were done I did some fifteen of them myself

sels to be worked with were thickened by wear and tear and disease to such extent that they were not amenable to successful suture More often than not a clot formed at the su ture line not at once perhaps but in most cases later on

There were certain features of that old operation though that intrigued one's im amnation to say the least and only now does the true explanation appear I might even advance the sugge tion that quite subcon sciously perhaps Jaboulas armsed at his conception of penartenal sympathectoms by the arteriovenous anastomo is route since he was actively interested in the blood vessel suture years ago even to the extent of himself doing an occasional arteriovenous anastomo sib for threatened or real gangrene. Whether he did or not is of cour e be ide the question but the fact remains that many of the patients who were subjected to an artenovenous un astomosis were considerably improved both in regard to relief of pain and improvement in the circulation of the affected limb even when the operation was a technical failure

It i plainly to be seen now that this relief was solely due to the penartenal sympa thectomy that was done in the course of the

operation meticulous removal of the adven titia being the very first step one might even say the most important one of all not only in this operation but in any vascular suture Thus we were very close to the penartenal sympathectomy quite some years ago and it is reasonable to suppose that our unfamiliar ity with the sympathetic nervous system to gether with its intangibility prevented us from realizing our proximity That the for was penetrated stands to Jaboulas s credit and to that of Lenche

Just what the final place of penartenal sympathectomy as a surgical procedure will be it is impossible at this time to say and whether anyone or everyone should do it is also of some question. One cannot help but

time This is especially to be emphasized in the case of those who have never done any of the finer blood se Inot manahin dling t

of the

prove disastrous I have knowledge of one instance (personal communication) in which the femoral artery was accidentally torn and immediate amputation had to be done while in one of my own cases despite great care a posterior muscular branch tore off flush with

nas to do with the larger arterial trunks can be called a simple affair and there are always real possibilities connected with the handling of such results

according to Lenche about

inches (5 centimeters) of the artery should be denuded and the best place is well up in Scarpa's tri angle in the leg starting below the profunda vessels and working downward and ju t below he atilla in the arm Coming down on the vessels one first m Lac th

32

tape (Fig 2) around the vessel at each end of the incision for purposes of lifting the vessel

PFRIARTFRIAI SIMPATHECTOMY INDICATIONS FOR ITS USE IN CIRCULATORY DISEASES OF THE EXTREMITIES!

BY BERTRAM M BIRNHEIM MD FACS BALTIMORE MARYLAND

THF sympathetic nervous system for the mot part is made up of such a been singularly free from surgical attach. Phy sologists have long been familiar with its importance and have repeatedly cit! d attention to it but the very evasureness of its ram incutions has acted as a screen to its activities and a protecting shield against interference.

Upon occasion the suggestion has been made that relief from certain ills was to be had by the section or removal of certain sympathetic ganglia or trunks and operations with that end in view have been carried out—successful operations too both in regard to relief obtained and to promise of future advances along similar lines. As so often happens though theory was in advance of practice and these operations proved to be hardly more than abortive pestures. The surgicial world was not ready to consider the sympa

or whether the desire to explore new term tones is the cause the fact remains that there is not only the readiness there is an eagerness to take up the cudgels against the sympathetic nervous system and surgeons are keenly alive to the possibilities of the situation

It must be admitted at the start that our knowledge concerning the activities of these nerves is none too deep. Whether the nerves

through the toxic products of faulty metab olism-has not been made clear but in any sympathetic nerves appear to exercise an in fluence of such character that a spastic condition of the tissues to which they are di trib

theory In certain ca es of angina pectoris extirpation of the superior cervical ganglion relieves the painful attacks. In Little's dis-

appear to be relieved by section of the sympa thetic nerves found in the adventitial sheath of the major blood vessels. This may be but the beginning

Pertaiteral sympathectomy was first sugested by Jaboulay in 1889 but it was highly the plant the role of Lyons France who gave it prominence. Leriche suggested in 1913 that the operation might be of considerable value in vasomotor and so-called trophic disturbances of the extremities and his published case reports were convincing Since that time he has performed the operation many times and for quite a heterogenous group of conditions some of which seem to have here heapfield more than others. Some

was certainly far fetched—one might even say it was unnece any or inadvisable since conservative measures might have accomnished more

One thing stands out clearly Striking re-

Indications for this operation have not thus far been made clear. I never knew how many painful amputation stumps there were until I began to hear of periarterial sympathectomy and as for the trophoneuro es

be too critical but the thought does occur that a better appreciation of the principles and applications of general surgery will do much more good in many of these conditions than such a technical affair as penartenal sym pathectomy If there is a painful neuroma it were best removed if a nerve is caught in scar tissue it were best dissected frue if amputation has been done below the knee in a case of blood vessel disease a mistake has been made and one ought not to re-ort to decap sulation of the artery high up to correct it Amputation should be done above the knee in these cases Then the stumps will not be pain ful proper healing will take place and there will be no ulcers. In any case the field for sympathectomy in this type of case should be decidedly limited

As for the rarer condition of trophoneuro sees trophoademata causalgnas and the like mo t of them have followed wounds of one sort or another whether incurred during the lite war or accidentially in civil life and are at best not of wide interest. Lenche himself in speaking of trophic troubles says. Relapse 1 possible if the cause of the trophic trouble has not been rumoved and the cause is not always removed by the symathectomy.

I believe as mpathectomy should be replaced here by the removal of the neuroma of the sectioned nerve which it he striting point of the vacousties reflexes causing the trophic trouble. The rimoval of the neuroma must be followed by the reconstitution of the continuity of the nerve either by suture or by graffs avoiding thus the recurrence of the neuroma. I per

I t Ope att e fill hw gatry t d gel with c mmo h th ut T pe b gp sid d the tery

tion is that there is a great group of viscular disorders of the extremities which for the most part eventuate in gangrine and it is here that one will find the real field for pen

mally found in the sheaths of large vessel control their contractile and expan ile activities and second that di order of these activities are at the bottom of many of the circulatory conditions encountered

As for operative indications I would sug gest that any case of circulatory trouble unex

the e obtained with arterial decap ulation in such ca e

with the least trauma and for the control of any accidental hymorrhage that might occur Following this step every branch that comes off from the artery, large and small should be caught tred and cut between two ligatures thus allowing the vessel to be hifted out of its bed and twisted and turned at will

If at this point a little warm salt solution is gently dropped on the artery its outer coat

real a small round opening in the adventitia into which (Figs. 4 and 3) the ends of a stright clamp can be introduced. The paws of this clamp which is held parallel to and flast on the atter; are gently opened the blunt end of a scissors is introduced between them (Fig. 6) and the two instruments following up the course of the vessel a longitudinal cut of the desired length is carefully made in the coat under consideration.

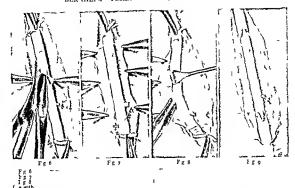
At this point the edges of the adventula are grasped on either side of the incision with straight clamps (Fig. 7) and by means of scissors kinfe blunt dissects or all three dissected back on either side. The clamps on one side are then removed whereupon by rotating the artery (Fig. 8) it is possible to dissect off the adventua in tole. It is a little difficult and at times trying to obtain a complete removal around the various arterial branches but by persevening and occasionally by snipping in exista hole in the coat to one

In some cases the adventitia seems to be in two fairly distinct layers and it is there that the difficulty less. When the first or main layer has been removed in the manner out hind the vessel should again be soaked in

first coat but rather definite none the less. It is to be removed exactly as was the first cost and when this is finished the vessel is to be thoroughly inspected once more for further evidence of adventitia. There will always be a few isolated fibers remaining but if one has been careful and skillful at the conclusion of his labors he will have left a vessel somewhat contracted whose wall smooth and glisten ing is considerably thinner at the site of operation than above and below. In some cases it is even possible to see the blood flowing within At the conclusion of the operation a nick is made in the adventitia (Fig. o) at either end of the denuded area to avoid any constriction that might arise at these points

scar ussue win o ou a a hemorrhage had much as if at some time a hemorrhage had taken place. The adventitia in these cases is thicker and peels off more as an actual coat but with more difficulty. The danger of teaming into the muscular coat is greater here too

damage. At the conclusion of the operatithe artery is dropped back in its bed and the surrounding structures are permitted to fall back in place. No satures of any kind that might be of a constricting nature are placed Only the overlying music fascia, the subcritancing fascia and the skin are sutured.



Pan. Hertz is even of the opinion that complete adventitul removal can be accomplished only by sharp dissection throughout the entreprocedure I cannot agree with him on the point and I think the number of accidents that would occur if sharp dissection alone were used in this work would be so large as

this by going back for a second layer as out lined and even a third layer. But perhaps the feature of the operation will have to be left to each undividual operator.

I have done nine of these operations on

Thiratett - " "

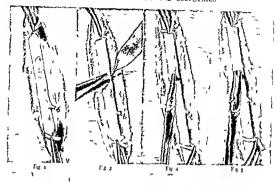
ven closely related Generalized arterio sclerosis, whether of the semle variety or associated with a disease like diabetes mellitus or syphilisis of course an entity and causes little or no confusion. Such other affairs as obliter atting endarteriis. Ravanud's disease and thrombo anguits though while of pathological individuality perhaps are oftitimes difficult to distinguish from one another churcally. In their early stages and in the mild cas

ate then

munificated by intermittint spaxins of artenoles and venules with the consequent color changes of the toes and fingers is the outstanding feature. But in their later stages they present pretures so similar to each other that on is forced to the conclusion that more than likely they are nothing more than manifes stations somewhat different in character of the same process. It must be remembered that bels are not the same process.

imays actually the same they are certainly

that notal



plained by some definite disease which is mainfested by pain disability intermittent spas rc of blood see d. Us of pul inton in distal vessels and ulceration of the digits or their gangine, these signs and symptoms taken together or in groups be considered sufficient warrunt for the operation. It has eliminates for the time being such affairs a diabetic disorders the threatened gangene of the aged and certain forms of obliterating.

been reported by Callander Muller Hal tead Mitchell and others It is true that thes same men chronicled failure also In sore instances the failures outnumbered the suc

fact that too mu h was expected in certain instance and cases that should have had amputation in the first place w re sympathed tomazed. Other failures I feel sure were due

- n on nf tth a ly med for

Thus far only a beginning has been made but the results obtained while not bulling are such as to give rise to encouragement to gether with the desire to make further trid for the need is great. Successful cases have the most meticulous removal of this nerve bearing arterial coat. This feature was

penarterial sympathectomy the lat winter with Lenche in Lyons and he friend Hertz in

that the collateral circulation developed previou to the operation and since has been adequate to prevent actual ga grene of the ti sues. This case is therefore put down as doubtful It would be unfair to call it either a success or a failure

CASE 2 Mr D A age 31 Russian Patient had pain in the right ankle and foot of 7 years duration

pathectomy as done January 1923 at Hebrew Hospital was followed by immediate healing of

Aute This patient has a sim lar condition in the nh I

sympathectomy

Cases 3 and 4 Mr B C age 43 Russian Patient had interm ttent pain and color changes in toes of right foot for over 1 year. Finally there was ga grene of mid-lie toe Arterial circulation was normal P marterial sympathectomy gave complete relief from pain and the gangrened toe gradually

has but slight pan a d then only at times. Fir t operation was d ne at Hebrew Hospital in March

1923 second in February 924 Both successe CASE 5 M I II age 33 Russ an ext action Pati at h d p in and cramps in call of left leg. He is abl to walk only a few blocks be ause lo t becomes numb \ mall ulcer h s devel ped near the nail The foot t r th cool but there are no intermittent c lor chang | Femoral and positive puls s are f it and there is a sugge tion f pulsation in the dorsa Is p dis artery but nothing more. Co servative mea ur fal d to give rel ef Penarterial ymna th tomy ! di comf t

) ble to plan s of ang us bl 1 much h t

vith th A compensati

pr ved

Cases 6 and 7 Mr M K age 47 Russian For 3 years patient had had pain in right leg and right big toe Walking gradually became impossible Foot was red when in dependent position and blanched when held up. The muscles were atrophied A femoral pulse was felt nothing below Diagnosis was thrombo angutis obliterans Peri

ı alter first operation Periarterial sympathectomy was done in April 10 4 Too days after operation nationt developed a sudden hemiplegia and died Both failures

Case 8 Mr A C age 54 Russian Patient had pain in right foot and big toe for 6 months becom-ing progressively worse. The foot is quite red and rather cooler than left. An ulcer is present at distal edge of bg toe nail and extends under the nail

May 1924 the big toe nail being first cut back and

CASE 9 Mr L B age 60 Rus 120 Patient had lost lelt leg 5 years ago from pain and gangrene

below D agnosis was thrombo angi tis obliterans Con ervative measures gave no relief Periarter al sympathectomy vas done at Hebrew Hospital in May 1924 gave complete relief the ordema sub sided the ulcers healed and the patient resumed former work Successful

REFERENCES

LEN ARTICAN B ton M & S J t924 BER FIN BERTRAN I IN S IE 19 2 Feb. CA LAN ER C. L. A. S g 93 1 c 73 Le rene R've Pesse med 975 pt op 53 1 5 g 9 Oct 5 MITCHEL J IES F South M J 94 1 g
9 MILLER G OF I hn S g 93 J
0 RUB O IT HAROLD M S g Gynec & Obst 93 % N 3 Srg 923 Sept p 78

fectious proce ses the infectious agent has never been discovered. My expenence in blood vessel conditions especially those asso ciated with threatened and real gangrene other than the true scleroue type leads me to the belief that most of them arise primarily from an irritability of the terminal blood vessels but that the course may be different probably by reason of some racial climatic toric or other unknown factor. It is with this

cases that I have done four were necessful in that their pain was relieved, their disability was removed and function restored. When one considers that all nine of them had

deserves mention

The nationt was stout pletboric man of 60 a Russian by h rth who had been living in Icras for many years. He had lo t his left leg 5 years ago

prevention and relief of circulatory di orders of the extremities that are want to eventuate in gangrene Ouite some years ago the procedure was unconsciously in use as a step in those operations that had to do with any blood vessel suture and certain of the benefit of results that came to pass following these opera tions notably the so called reversal of the cir culation in the light of our present knowledge must have been due to the operation. The operation consists essentially in the climina tion of sympathetic nerve control over certain blood ve cls as a result of which they are per mutted to dilate and carry apparently a greater quantity of blood than they had been carry

Exact indications for its use remain some what problematical but certain states char acterized by a spartic condition of the blood vessels offer its greatest field. Nothing is to be honed for in arteries completely thrombo ed and at the present time the arterio clerotic disorders diabetic syphilitic do not seem to be amenable to relief in the manner though it never pays to be too positive in such matters Certain early ca es may be beloed

The operation itself while not simple or de youl of danger is not too difficult and any surgeon of expenence should be able to do it satisfactorily The chief point of importance is to secure absolute removal of the advertitial coat of the artery ince the sympathetic nerve fibers are for the most part in the coat and the purpose of the operation is their removal

PEPORT OF LASES

Case & Mr J S age a \m ican Had lost

n)

oπ nt m on

ici et had b en e ij oyeu er more to my concepts n of thrombo-ung tis than anything else 1th Raynaud's disease the second choice my was dep Mas

1 mh

resumed his forme oc upati n

It will thus o arterial sympathectomy of Len he is a proel healed Not

codurt that may be of great usefulnes in the amin in a





Ig Readge g mofth am foot it sul trag

anternor promontory and of removing more than just the cartulage from the joint. This is illustrated in the accompanying cut. The cartulage and sufficient bone are removed from the inferior surface of the astragalus. By fashioning the surfaces of the os calcia and astragalus either a varies valgus or calcianeus.

taces The bone should be removed in such a way that good contact is had with the foot in correct position without the use of force

It is of time importance to set the foot backward beneath the astragalus. This is true especially in calcaneus deformities but applies to varius feet as well. If this is not done the weight bearing line will come through

the posterior part of the foot and the strain will not be well distributed on the longitudinal arch This leads among other things to a lateral strain on the foot which is liable to cause a stretching of the lateral ligaments and con equent instability It has been found that even though the lateral ligaments are some what relaxed to begin with if the foot is dis placed backward sufficiently it will be stable and functionally good provided of course there is not excessive rotation of the tibia In the varus cases the os calcus is ant to be rotated forward and for this reason should be set back. It can be demonstrated by \ rays of culcaneus feet that the os calcus actually is deformed-the bone itself pointing downward rather than being simply rotated because of dorsiflexion of the foot. It is necessary to overcome this by removing a wedge with the base posterior from the subastragaloid joint This enables the heel to be brought upward as well as backward To get the os calcis far enough back the lateral ligaments must be detached supperiosteally from it



I'k 3 Korntg gram f foot bef perat TI a 1 f rm t



1 g 4 Roe ig n gr m f foot ft b tagal i

SUBASTRAGALOID ARTHRODESIS

A STUDY OF EXD-RESIDES

BY ILAN DEFOREST SMITH AB MD A D HERMAN L VON LACKUM BS MD NEW YORK
AN dang'S reco New York Orth peolog Hot Gil

IN order to study the end results of opera tions for subastragaloid arthrodesis per formed at the New York Orthopedic Di pensary and Hospital an effort was made in 1022 to examine all the nationts operated upon from 1914 to 1921 inclusive. The total number was 223 and of these 1,5 returned for examination The study was made from these patients and the 68 who failed to return were not included because the data in regard to the end results were incomplete. The pa tients examined represented operations upon 108 feet. The interval between operation and the last examination varied from 6 months to 714 years The operations were performed by 13 different surgeons

ity? It is based on the principle that the astragalus is the most stable bone in the foot and that practically all lateral motion or de-

to the astragalus and the cubon to the oscicles. The procedure vas used in this choice soon after it was described by G G Davis of Philadelphia but his technique was modified by making adequate incisions to obtain a good exposure of the joints and by removing our tilage and hone with a clusel instead of a curette.

Two incisions usually are used one over the inner side of the foot commencing, just below and in front of the medial malleolus and extending downsard and forward across the astragaloscaphoid joint and the other reach uniforward into the type of the lateral malleolus across the calcaneocuboid joint. The complete the control of the complete of the control of the con

expo ure of the joints involved is best made

of the head and neck of the astragalus and of the scaphoid but also of the joint at the

and the promontory on the antenor aspect of

lossa are the antenor ups of the facets com posing the large postenor part of the sub astragaloid joint. It is necessary to remove the ligament but care should be exercised to leave enough fat to prevent a dead space After the exposure has been made the car tilage is removed and the bons surface htted The head and neck of the astragalus are re moved by a transverse cut sloping backward The portion of the head and neck excised de pends partly upon the degree to which it is desired to displace the foot posteriorly. The articular cartilage and the upper portion of the bone of the scaphoid then are removed in such a vay that the cut surface faces back ward and upward. The makes possible the sliding back of the scaphoid beneath the astragalus. The articular cartilage is also re moved from the joint at the su tentaculum through this medial incision 3 Through the outer side the cartilage is removed from be nd hac h d but unless

is now mean vitti up the superior surface of the o calcis on one plane. This neces itates cutting off the top of the

ant

for to type for dirmy mybid or doth on operation brough hinciso h to difhioo

F m h Ch () 1 k Orth pred Il pe sa y and blosp tal

in its mortice between the malleoli even in the most severely relaxed feet. The ability of the patients to walk before operation was poor in 173 cases and fair in 8 Three were unable to walk without braces and I was un able to walk at all This disability was large

Included in the various methods of treat ment before the subastragaloid operation in these patients were certain operative procedures which were not successful in balance ing the foot There were 6 tendon transplants 6 tendon fixations 7 instances of division of ligaments including in 2 the plantar struc tures is cases of lengthening of the tendo Achillis I shortening of the tendo Achillis I silk ligament insert i attempted subastraga loid arthrodesis 2 astragaloscaphoid arthro

As supplementary procedures the following operations were performed at the same time as the suba tragaloid arthrodesis lengthening of the tendo Achillis a cases transplantation of the peroneus longus into the tendo Achillis a cases transference of the tibialis anticus into the outer side of the foot 3 cases division or lengthening of the tibialis posticus and ruease or the internal fateral ligaments of the

extensor hallucis longus into the scaphoid i case

Following the subastragaloid arthrodesis 11 cases had the tendo Achillis lengthened 1 had an arthrodesis of the phalangeal joint of the great toe and z a tran plant of the digi torum longus tendons into 1 of the cunciform bones Because the subastrugaloid arthro de is had been done inefficiently it was neces sary to follow it with a resection of the tarsus in I case and arthrodesis of the astrigalo scaphoid joint in another

The upper extremities were involved in 15 cases the abdominal muscles in 8 the back mu cles in 29 the muscles about the hip in

116 and the quadriceps in 115 One or more of the muscles acting upon the foot were af fected in each case of the poliomy chitis group

In all but a very few cases the operation made it possible for the patient to discard braces provided they were worn because of weakness of the foot alone. In some cases of weak or paralyzed quadriceps muscle where there was sufficient equirus to force

Although it now is the established routine to change the first plaster cast at the end of 2 weeks to have the patient walk in plaster at the end of 6 weeks and to remove the cast in 12 weeks this varied somewhat in these cases and still varies to some extent. The

that there was a larger percentage of poor results among those in whom the cast was removed before 8 weeks than in those removed later This is explained by the softness of the bone and the tendency of deformity to recur

The end result was estimated by taking into account the position of the foot and the degree of correction of the deformity the fusion between the bones and the function in weight bearing and walking. The correction of the deformity was complete in I 8 cas s fauly complete in 58 and poor in 21 over corrected in I Many of those in whom the deformity was not completely corrected had a good functional result because of the im provement of the stability of the foot West ht bearing was excellent or good in 122 cases fairly good in 3 fair in 52 and poor in 20 Four still were unable to walk without braces because of extensive paralysis of the extremity

The union was bony in 157 firm fibrous 10 fibo with on a

Th

cor a c petween bone surfaces in each joint In some the joints were simply curetted and m others sufficient cartilage was not removed If the conditions are fulfilled properly good firm union is certain to occur



I g 5 l entge bram off thel cop est n

The wounds are do ed in three layers the

skin with silk and a plaster cast is applied from the toes to mid thigh. It is essential to hold the foot in the correct no ition while the plaster is setting but in order to make ure that this is done and to in pect the wound and remove the sutures the plaster is changed at the end of weeks If it then is desired to wake any change in the polition of the fort it can be done under introus oxide ana sthesia The patient is discharged from the hospital at the end of 2 weeks with instructions to ruturn to the di pensary at the end of a verks for observation or a second change of plaster A heavy cast is non applied and walking is racted Il foot i kept immobilized in play r for 12 weeks after operation. An or dinary shot is then worn and mas age is stared. No cr cearly the counger patients have been made to near an ankle brace for a period long enough to moure maintenance of the correct position

Although most of the cases were due to prolio myeliti the operation has a wide field of applicability and as the most frequently used major procedure in this clinic. It is indicated in addition in deformities caused by pastic and fricture and malposition in the



It 6 Roung a gram f same foot fier ope at h to the c t at to which the foot h b a diplor alposte fly b this c tr al

Nery unusual circum tance the operation should not Le done under it or it veins of age though Dasis reported success in much some et ca. St. has been found however wire those reported on text in Cases 4 or 5 years of age that good bony con

formity cannot be controlled othern's these cases particularis the one with an

betneen surfaces of bone riune i tain instances particularly in cases of club feet in c not been

recently

h r "alord joint without expectation of

hon

The type of deformity in this series was hand or equinovaries in 86 feet valgus or equinovaries and calcaneus—mainly valgus a few hands and lawth varing degrees of carvie—in 40 5 feet had flail joints with the tendency to varies. It is interesting

ye rs of age 201 from 10 to 15, 30 from 15 to 20 13 from 20 to 30 and 3 from 30 to 35 Formerly it was considered that except under

skill and experience as well as meticulous after care

2 It is of prime importance to displace the

astragaloid arthrodesis still can be done suc cessfully provided the foot is well placed laterally and anteroposteriorly

4 The operation is adapted to nearly every type of foot deformity. In this series the best results were in the calcaneus feet. 5 The operation may be performed as early as the sixth or seventh year

6 The poor results were due in every case to failure to obtain good position of the foot at operation to the rimoval of the plaster support too soon after operation to the failure to obtain fusion or to disregard the torsion of the tibia. These errors were the result of our ignorance as to the function and the mechanics of the foot

7 The optimum result can be obtained in prictically all cases provided the conditions are fulfilled

PANCREATIC LITHIASIS

BY STINLIA I SEEGEP MD FACS MILWAUREE MISCONSIN

CAREFUL search of the hterature both English and foreign brings to I light only 22 cases in which panereatic calcult have been removed at operation. This is in keeping with statements made by vari ous authorities relative to the rarity of this condition The object of this paper is to re view the literature on the subject and report a case successfully operated on In spate of the fact that it is not a common disease pan creatic lithiasis is of more than academic in terest An article by Moses Barron in which he reported a case of pancreatic stone stimu lated Banting and led him to the develop ment of insulin Barron's case illustrated the fact previously brought out by Opie that obstruction of the princreatic duct is accompamed by atrophy of the pancreas but that the 1 lands of Langerhans remain intact even when the acini disappear completely and as

in 1667. A few cases were reported up to the end of the nineteenth century. Oser in 1900 collected 70 cases from the literature and to these may be added 19 of the operative cases here.

cutt

Atkinson and Hirsch 1907 Opie 2 cases

1910 I forringer 1912 Bissell 1913 Barron 1920 With the one here reported this makes a total of 100 cases Opie found 2 cases in 1500 autopsies which represents the average of the frequency reported by others Prob ably more are seen than reported

The cau e of pancreatic stone is obscure Stasis is probably an important element in their formation Stasis is rarer in the pan creatic ducts than in the bile ducts because of the presence of the accessor, pancreatic duct Either both pancreatic ducts must be obstructed or one must be obliterated or absent Obliteration of the duct is not un common whereas stone formation is rare indicating that stagnation of the secretion alone does not explain the formation of stone In repeated animal experiments which bave been reported ligation of the duct was not followed by stone formation The composition of pancreatic calculi is interesting in that cal crum carbonate is an important constituent The fact that the normal pancreatic secre tion contains no calcium carbonate would indicate that an altered secretion precedes stone formation. It seems reasonable to conclude that the secretion altered either by in

cause of pancreatitis has been shown by the

The astragalus was stable after operation in 125 cases slightly or moderately relaxed in 6x everely relaxed in 10 In a few of these the relaxation of this bone was definitely present before operation but in others it oc curred after operation either from the fact that he foot was so poor position thereby causing a severe strain on the lateral heaments or because the ligaments were divided during the operation Both these factors are un necessary and should be avoided OA r things heing equal the excellence of the end result corresponded with the degree of stabil

that the weight thrust come near the center of the arch

The results in cases operated upon at 10 years of age or earlier were excellent or good in 6 sper cent fair in 6 a per cent and poor in 31 per cent. While the percentage of excellent and good result here is the same as in the older cases, there are commaratnely more poor results than fair This is believed to be due not to the age of the nationt but to the fact that the operations were improper ly carned out and also to the fact that the feet F nt tm after serious nor did it interfere with union of the

caused primarily by an infection

For the entire series of cases and nith all factors considered the end result was excel lent or good in 66 r per cent being ontimum in 37 4 per cent fair in 23 7 per cent poor in

o o per cent The fulures poor and fair results are all due to imperfect operative technique remova) of plaster too soon after operation or to rotation of the tibia. Some few which were placed in good position at the time of opera tion failed to remain to becaute the plaster was removed too soon for whight bearing without support and others failed because sufficient cartilage was not removed to obtain good approximation of bone at the time of operation. The majority of poor results hon e er were due to failure to obtain a perfect position of the foot either laterally or antero

postenorly or both That is the neutral h = 1f th maintenance

7 Jears and often tal t

The calcaneus deformities including cal cancovalgus and calcaneovarus as well as the campl calcaneus deformities vielded better re sults than the entire series or any special group They were excellent or good in 92 3 per c - being ontimum in only 54 per cent face in 3 8 per cent and poor in 3 8 per cent The results in the valgus feet were better than in the varus The former were excellent and good in 66 2 per cent bring optimum in 40 per cent far in 26 5 and poor in 7 2 per cent The results in the varus feet were excellent and good in 59 3 per cent being optimum in only 28 per cent fair in 27 9 and poor in 12 7

There were superficial infections in 12 cases or 6 per cent. In no case was the infection

was except by osteotoms of the tions become or can after the arthrodesis. This fact pre viously has been pointed out by Hike

a t th ont mum result

necessary an estectomy of the tibia

CONCLUSIONS

opera

skill and experience as well as meticulous after care

2 It is of prime importance to displace the foot backward beneath the astragalus as well

astragaloid arthrodesis still can be done suc cessfully provided the foot is well placed laterally and anteroposteriorly

4 The operation is adapted to nearly every type of foot deformity. In this series the best results were in the calcaneus feet 5 The operation may be performed as early as the sixth or seventh year

6 The poor results were due in every case to failure to obtain good position of the foot at operation to the removal of the plaster support too soon after operation to the failure to obtain fusion or to disregard the torsion of the thus. These errors were the result of our ignorance as to the function and the mechanics of the foot

7 The optimum result can be obtained in practically all cases provided the conditions are fulfilled

PANCREATIC LITHIASIS

BY STANLEY I SEEGER ALD FACS MILWAUKEE WISCONSIN

ACAREFUL search of the literature both English and foreign brings to calcul light only 22 cases in which pancreatic calcul have been removed at operation. This is in keeping with statements made by various authorities relative to the ranty of this condition. The object of this paper is to re

creatic lithiasis is of more than academic in terest. An article by Moses Barron in which he reported a case of pancreatron in which he reported a case of pancreatre stone stimulated Banting and led him to the development of insulin Barron scase illustrated the fact previously brought out by Ope that obstruction of the pancreate duct is accompanied by atrophy of the pancreas but that the islands of Langerhans remain intact even when the actin disappear completely and as a result gly cosura does not develop unless an interstitual pancreatitis is superimposed interstitual pancreatitis is superimposed.

The condition was first reported by Graff in 1697 A few cases were reported up to the end of the mneteenth century Oser in 1900 collected 90 cases from the literature and to these may be added 19 of the operative cases here reported and to cases reported by Kinmi cutt 1902 kellod. 1902 (mentioned by Moynihan) Phillips 1904 Muller 1903 Advision and Hirsch 1907 Opte 2 cases

1910 Pforringer 1912 Bissell 1913 Barron 1920 With the one here reported this makes a total of 100 cases Opie found 2 cases in 1900 autopaes which represents the average of the frequency reported by others Prob

ably more are seen than reported

The cau e of pancreatic stone is obscure Stasis is probably an important element in their formation Stasis is rarer in the pan creatic ducts than in the bile ducts because of the presence of the accessory pancreatic duct Either both pancreatic ducts must be obstructed or one must be obliterated or absent Obliteration of the duct is not un common whereas stone formation is rare indicating that stagnation of the secretion alone does not explain the formation of stone In repeated animal experiments which have been reported ligation of the duct was not followed by stone formation The composition of pancreatic calculi is interesting in that cal cium carbonate is an important constituent The fact that the normal pancreatic secre tion contains no calcium carbonate would indicate that an altered secretion precedes stone formation It seems reasonable to con clude that the secretion altered either by in fection or " " stasis pr

into the c

The astragalus was stable after operation in 125 cases slightly or moderately relaxed in 63 severely relaxed in 10 In a fe v of these the relaxation of the bone was definitely present before operation but in others it or curred after operation either from the fact that the foot was in poor po ition thereby

n ce sary and should be avoided. Other things being equal the excellence of the end result corre ponded with the degree of stabil

that the weight thrust came near the center of the arch

The results in cases operated upon at 10 years of age of earlier were excellent or good in 62 5 per cent fair in 6 2 per cent and poor in 31 per cent While the percentage of excellent and good results here is the same as in the older cases there are comparatively more poor results than fair This is believed to be due not to the age of the patient but

erious nor did it interfere with union of the hones

or neer fered w caused primarily by an injection

o 6 per cent

For the entire series of cases and with all factors considered the end result was excel lent or good in 66 r per cent being optimum in 17 3 per cent fair in 23 7 per cent poor in

The failures poor and fair results are all due to imperfect operative technique removal of plaster too soon after operation or to ro tation of the tibia. Some few which were placed in good po ition at the time of opera tion failed to remain so because the plaster was removed too soon for weight bearing without support and others failed because

position was not obtained for the maintenance of lateral balance or the foot was not et back sufficiently to create good weight bearing across the longitudinal arch. However in

way except by osteotomy at the it in a or soon after the arthrodesis. This fact pre

neces ary an osteotomy of the tibia

CONCLUSIONS

1 Subastragaloid arthrodesis is an of era a not hit

OE fac

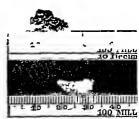
The calcaneus deformaties including cal cancovalgus and calcaneovarus as well as the simple calcaneus deformities yielded better re sults than the entire senes or any special group They were excellent or good in 92 3 per cent being optimum in only 54 per cent fair in 3 8 per cent and poor in 3 8 per cent The results in the valgus feet were better than in the varus. The former were excellent and good in 66 2 per cent being optimum in 40 per cent fair in 26 5 and poor in , 2 per cent The results in the varus feet were excellent and good in 593 per cent being optimum in only 28 per cent fair in 27 9 and poor in 12 . There were supernual infections in 12 cases

or 6 per cent. In no ca e was the infection

common bile duct. In two cases irregular

As the symptoms would indicate diagnosis 15 difficult if not impossible and was made only twice before operation. In the cases treated surgically positive functional disturbance of the pancreas was noted only rarely when the abdomen is opened the location and consistency of the pancreas make palpation of uncertain value Several cases in which mistakes in diagnosis were made are of inter est In Phillip's case the patient was operated on for gall stones and none was found Jaun dice persisted and sugar appeared in the urine the patient dying in coma At autopsy nu merous stones were found in the duct of Wir sung Pformager's patient had pain in the right side originating in the lumbar region and showed an X ray shadow which was some what nearer the vertebral column than is usual in kidney stone. Operation for renal calculus was done but none was found The patient died of hæmorrhage and autopsy re vealed a calculus in the main duct of the pan creas Link operated for intermittent hydronephrosis on the left side and found the Lidney involved in a surrounding inflammatory proc ess The tail of the pancreas was found filled with calculi Murray operated on a patient for gall stones but found none and 6 weeks later after the patient had a severe attack of pain he removed a stone from the pancreatic duct Mayo Robson suggested the use of the ray in the diagnosis of this condition be cause of the large amount of calcium which is present in these stones. Its use is noted in three of the operated cases In Hartig's case the \ ray was negative but stones were found at operation In Lindsay's case the \ ray showed shadows outside the stomach Post operative \ ray in Lacoutre's and Charbon nel s case showed overlooked stones

Two of the 22 operative cases dued so that the mortality rate with the case here added would be about 8.5 per cent. This series demonstrates that the action of the pancee atte junce on the tissues is not to be considered dangerous in pancreatic surgery. In the two cases which died no evidence of fat necrosis was found nor was any other complectation present which was due to the fact that pan present which was due to the fact that pan



F1 Photograph of pane eatic calculus remov d in autho case

creatic tissue had been worked on. In no case of removal of stones did a permanent fistula develop. There are three routes of approach to the body of the pancreas. It may be reached cither by opening the gastrohepatic omentum the great omentum or the trans verse mesocolon. The latter route gives access to the tail of the gland and care should be evercised in this procedure not to injure the middle cohe artery. In removal of stones which have lodged in the terminal portion of the duct of Wirsung the duodenum is drawn to the left and incision made through the mesenters of the duodenum as was illus trated by Sistrunk Senn commented on the fact that limited injury of the duodenal mesen tery such as is necessary in this operation is relatively safe and not followed by death of the bowel Stones located in the termination of the duct or in the ampulla may be removed by incising the duodenum and passing a scoop directly into the ampulla as was done in

The following is a report of a case in which I successfully removed a pancreatic stone

Moyniban's case

The patient a man age 42 was referred to me by

work of Mann and Giordano In previously reported cases of pancreatic stone about 75 per cent have been in males. It is interesting to note that of the operative cases which I have collected only 5 were in males and 15 were in females. The average age in the senes operated unon was 4x vers.

Fine sand and very small stones are not so rarely noted in the pancreatic ducts. As a rule when stones are present they are multiple Usually they are in the ducts either in the main duct or its smaller radicles. In several instances the entire pancreas has been found filled with stones The favorite site for their lodgment seems to be at the noint where the main duct passes through the duodenum Oc casionally stones are found in cysts or ab scesses Gaillard reported a case in which calculi in the tail of the pancreas ulcerated through into the stomach and Clayton re ported an instance of pancreatic calculi ulcer ating through into the peritoneal cavity Marked hamorrhage from the bowel due to

smooth by the action of the aorta Cholesterin is occasionally found in these stones and when they pass into the ampulla they may

receive a coating of hile salts
Occlusion of the pancreatic duct does not

retention cysts develop from ligation of the duct of Wirsung This condition is probably are tabulated the following associated lesions were noted. Abscess of the pancreas in 3 pancreatic cyst in 1 carcinoma of the pan creas in 1 gall stones in 3 diseased appendix in 1 enlarged spleen in 1 duodenal ulcer in 2. The condition of the pancreas was noted as

Pain is the most important symptom of this condition and is variable in character. It is usually epigastic and may be dull and continued or intermittent occurring in coles similar to those of gall stones. Radiation to the lumbar region especially the left is said to be characteristic of panicratic stone and was present in four of the patients operated on Glycosuna when present occurs only in advanced stages of the condition and is then due to the interlobular pancrestitis and not to the stone itself. Ope states that when dia

free from involvement. In the 70 cases collected by Oser 24 showed diabetes or transitory glycosuna the latter symptom being considered an important one by various men. In the 21 cases operated upon glycosuna was

common Fatty stools were present in only 3 of the cases operated upon In several in stances stones have been passed in the stools Weight loss has not been emphasized as an important symptom but it is worth noting that marked loss in weight was present in 9 of the 2 cases operated on Jaundice is not un common In the senes operated upon it oc curred six times In two cases it was associat ed with gill stones and in four cases no gall stones were present. It is important to point out the two cases in which there occurred pain less jaundice with weight loss and strength loss and no gly cosuria as this syndrome is usually associated with malignant disease involving the head of the pancreas and the

CASES OPERATED UPON REPORTED IN LITERATURE-Continued

		CASES OPERAL	LD OPON REF	WILD IN				
R port d	λε κ	P in	Oth Symp ms	1 duc	St D	Cly	Phlgy	O tc m
D d 95	3 3	S p true 1 rr d pa	ll ty P seim t	N	N	N	Ft Ab h d fpa Th y m th b	R co y
II tg os	M 34	tps bd m l d t g to h ld	X y g ool	N	`	N	p _m indi	Recov y for s m th D h d rc m
, ii	F 7	F imil th	D ll b ps	Rurg	P t	`	Thr cal 1 pa cr Ch lecys with t	R y
L hay	M	d t g to b k d	y h ry y h wd h d w ts i m ch Stoi mi I al pam ts to f cck d h Sigh w t g l y		N	N	usig dmy mil to fca cab to The d dth d dltd d th t d Cit t i	
5 unk	FS	Et a tr ramplik	wight I t gi				Hdd 1 1 1 6 1 - e t out m mad pl 1 g O t b m p 11 un pock t pa eas	Rec ery
5 k	M 33	Ciky tyear	Ope d po y bef i g ii y to the bese w m d 11 i per tw		P se	Pec	fit s dpa Som d f S torus t m d Appe du d as d	Icr d Il Reory
5 k	F 68	Epg t d	g spod ghtl				M y h o	R ry
Siunk	F		Duod 1 1 b				Ul f d C tr e ostom O to pa t d mpull	R ry

taking of food except that meats aggravated it some

1 1 h

what The pain radi ted to the right scapular re g on At tim s after meals he had a crowding up ward of gas He thought that his eyes we e slightly tellow at times. He thought that his stool had

L D at 1 mys cal examination was negative the pa tient being a well developed and well nour; hed m n

I u cormat contained no stones and was not dis lurb d The common duct was negative to palpa

body of the pancreas A small incision was made int the substance of the gland and a stone irregu lar in outline a 6 centimeters by 0 7 centimeter by

11 5 ma 5 was in the

SURGERY GYNECOLOGY AND OBSTETRICS

CASES OPERATED UPON REPORTED IN LITERATURE

Report d	3	P us	Onkey Symptoms	Jund	G II S emes	Cl o-	P thology	O me
C Fue II						S ar Ia dise se	M y to es baces	Rec ed D by t f m dube es
P 7 3			W ight loss fum				O bscess	Not tand
Gold 88	М 6	Abr	L t ight engly and pos Cly led out	M ked	h	`	Pinc as d 1 eolorged P to es body d i d f W su g Stancy or -czeb	Died th day y m 1 cept f biscess resp f excum
Dairel 90				N	\		One to duc of U tang Stat ! Se	Rec y
My h	1 57		g 23a or	,	N	A	P } g d especially brad. On on in my al por on I due	Roçov 19
All 2005 (Cla 1 2005 (Euro m)	13	P xy mal pay se adia g lel I mba ar	Los y po de sa y Ch il d l Clay colored tools	Early for week A th in pa	N	N	T cy is f ps so to its g w to es talcare no 1 hrough paner as who was ph A tops report hed is-lade i Lageth no preserved	Ded h day 1 topey h d pe ton tas
M beca	F 37	Sever			ì	*	On to d of Sa torn in duc i W d one in patient	Recovery
H II F	M S	None.	Marked 3 41 to 1 to 1 to 2 to 1 to 2 to 2 to 2 to	MA	N	N	on co-carp or	
Stable d Roebe pos	F 59	Deep sea ed bense		N	^	Non	F est h d	
R b 907	¥ 7	Upp bd mi	Lo h ory h trag tori or mal	h		Non	P not la \f y -ca b on d body f pa -in pol hed by movem	
Link 9	F	Promitial d	Erms to g pai I cred bydron phros pec ed d pres we for h be form kid y m I S ool ormal	N.	A	h	M pl calc b marked re is pa erro	
F edland	F 14	1 k Uppe h bdom	F 1 tes fur		Fe	۲	fpun Lb	
Murr y	F 4	S pg trie i	Length ory Oper f g ll N f d S week la open l f p acre	16,8	N	*oh	G 11 Cn ton i paneres d	Rec ery
La outre c	Fs	h bd me d	ry V m &	h	Non	You	Tw cab ca On hed ips cre d on wall [gall bi dd	Rec very La er howed ave looked

THE ORAL ADMINISTRATION OF SODIUM TETRAIODOPHENOL-PHTHALEIN FOR CHOLECYSTOGRAPHY¹

BY LESTER R WHITAKER, M.D. BOSTON MASSACHUSETTS GIBBS MILLIAEN M.D. GALVESTON TEXAS
AND EDM NRD C VOGT M.D. BOSTON MASSACHUSETTS

THE work of Graham Cole and Copher (to 2 3) upon the intra-views injection of sodium tetrabromphenolphtha lein for the purpose of cholecystography has aroused widespread interest in medical circles and has opened up a field of great possibilities. Because of the somewhat completated technique of administration and the tendency to reaction following it however climicians

shadows of the gall bladder might be obtained For these reasons we attempted the oral ad ministration of the drig sodium tetraiodo phenolphthalein Graham and his collabora

pnenoputnalem Graham and his collabora tors have been trying new methods of giving sodium tetrabromphenolphthalem by mouth and by rectum but their results have not been published (4) In our hands sodium tetragodphenolphthalem by intravenous in jection gives shadows superior to those produced by the bromine compound (5) This with its comparatively slight toxicity in the mounts necessary to obtain shadows gave reason to suppose that the drug would also be superior for oral administration

Experimental work on giving the drug by mouth was stimulated by an interesting observation made by M C Sosman roent genologist at this hospital In doing a routine

absent at 4 hours had reappeared at the end of 72 ho. Th. n.d.

Preliminary trials Since the dogs suffered no ill effects except vomiting in some cases we decided to perform the test upon a human subject Consequently a dose of o 1 gram per kilogram about twice the dose for intrave nous injection was taken with the stomach empty in a 5 per cent solution followed by a pint of water There was a slight iodoform taste with an astringent quality which per sisted until acid fruit juice was taken. Aside from a temporary sense of nausea experienced shortly afterward and a loose bowel movement 4 hours later the taking of the drug caused no inconvenience. The faces gave a strong test for sodium tetraiodophenolphthalein gall bladder shadow began to appear after 6 hours and was very distinct in 12 hours (Fig 1)

Seven house officers at this hospital then kindly volunteered to ubmit to the test The drug was given in doses of o r gram per

subjects counted after 10 minutes another after an hour and a half. In the other 5 there was a temporary nause. One had a moderate diarrhea. Six out of the 7 showed definite gall bladder shadows even though in 1 case the salt was retained only 10 minutes.

The ease with which shadows were produced by the oral administration of sodium tetraiodophenolphthalein and the temporary

officer without coming in contact with the

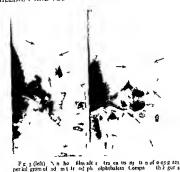
and again excreted in the bile thus allowing a second cholecystogram 72 hours after the first. In dogs 0.4 grams of the saft pre kilogram of body weight given by stomach tube in 1 per cent solution produced good gall bladder shadows in from 12 to 24 hours.

a cuse in this form of about 0 045 gram per kilogram of body weight the average intra

From th S g 1 Cl J Departs I Rose | sy b P B t B ugh m Hosp tal, Bos M saa b set Read before th II sward Medical Soc y J ary 7 9 5

HETHERC Wiesb den 9 4 P = 5

```
8 Horramer os Sigey of the pair a pan
                                                          to K
                                                                autops
                                                              KEUTHE W Em Fall n Pankr as t ophie
                                                                                                          Berl
                                                                kl
                                                                     Wchnschr 1900 p 47
hepatic omentum was closed no drainage being eui
                                                              Ks.
ploved The postoperative course was uneventful
              n on of a bronchitis which was some
                                                          23 L
                                                          24 L
                                                          25 L
                                                          36
                                                             Ţ.
                                                          27
                                                          Lond 192 u or
23 Link G The tr atment of cho c p ne eat in by
                                                              paner to t my Ann B g 19 t 1 1 76-78
Many Group to Th b1 factor in panere titis
                                                              Ar & Surg 1923 vi 1 3
Mayo-Rosson Lauc t Lond 19 1 1 91
                                                          10
                                                          11
  The tabulation of the cases operated upon
does not include the case of Weir which i.
listed by some authors as in his paper de-
                                                          33
scribing the operation he states that no stone
was found
                                                          11
                  BIBLIOGRAPHY
    ۸
                                                          35
                                                          36
                                                          57
33
 3 A
                                                          39
      P 543
    RARROY
      beies
                                                              PREWITT T F J Am & As RESTREETE W Ka istuch t B it grut kennto
    BIS ELL
      parere.
                                                                   St mbild ng in Pan re Mitt a d Gren geb
       x 151 69
                                                                          L.
                        Rel (i die andrea P ! ha
                                                                                  008 P 25
    C PARELLI
                 18 6
                                                              Ro
                                                          44
       R me 1808
    CLAYTON A M d Tim s 1889
DALZIEL BRI M J 1902 L 13 2
                                                          45
                                                              R
                                     Ann Stg
 ø
                                                          47
30
                                                             Sweet J E. Sutpery of pane a I t m t Cin
pis i 193-367
Smagaley E and Rozses W J \ w \ k M J
 1
                                                          48
12
13
                                                              2 405 IXXXI 9 4 009
SISTRUTE W L Ann S 1g 192 IXXI 180
14
                                                              MIRULICE RABECRI VON AGE S TE 16!
                                                                                                            103
                                                                XXXVIII S- Q
                                                                                                  h A
                                                                                                             tc.
                                                          52
 6
      n ma of p n e s A n and a can bette g s Pank as
                                                                                                             -2
```



Tel h filma(tr I donn tratton of a f m pe kil ar m of s di m t tra d i henolphth le i s lol-c at d p lls Same bject as in F gur 2 a d 3

though there were numerous exceptions to this rule (Figs 5 and 6)

Becau e of the fact that the shadows by oral administration of the drug are somewhat faint the roentgenographic technique must be exceptionally good and particular pains taken to eliminate re piratory movements which tend to erase the shadows. The patient should not be told to take a deep breath but a moderate breath-one cannot hold the dia phragm perfectly still after filling his lungs to the limit Furthermore reliance should not be placed on a ingle exposure but several should be made at each interval. All this is important since the absence of a shadon granted perfect technique almost certainly indicates cholecystic disease

We do not wish however to overemphasize the lessened density of the cholecy stograms by the oral method for many of them compare favorably with those obtained by the intravenous method of giving both sodium tetra bromphenolphthalein and odium tetraiodo phenolphthalcin This i illustrated by com paring Ligures 2 2 and 4 which show toent

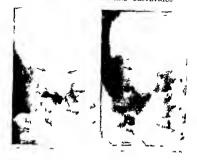
genograms of the same normal individual in whom all three methods were employed

It is of interest to note here the difference in the subject's symptoms with the three methods. After the bromine salt injection (Fig.) he comited and was quite ill after the iodine salt injection (Fig. 3) he felt sleeps and somewhat weak but after the rodine salt by mouth in pills (Fig. 4) he felt no symptoms whatever

MANAGEMENT OF THE PATIENT

The patient does not have to be hospitalized in order to carry out the test in fact he can proceed with his usual activities. Five grain

to be harmless in this form a large dose is given in order to insure shadov 5. A light supper of bread and tea coffee cocoa or milk is allowed and starting at 8 or 9 o clock p m four pills are taken every 15 minutes with half a glass of water until the whole number is



venous dose and about one half the calculated dose for oral administration. He experenced no symptoms whitever \ ray 4 hours afterward showed that all the pills hal left the stomach and three of the 6 taken were still intact. A cholecystogram after 6 hours showed a well outlined shadow of the gall bladder. At the 12 hour interval this shadow was more distinct. Three of the pills were still andissolved and the shadow had thus been obtained by one half the intravenous dose

used A light supper was taken and then o I gram per kilogram of body weight was given in doses divided over an hour or more. None of the subjects showed any definite symptoms except that one had a free bowel movement a few hours after trking the drug. Gune tests and microscopic examination of the stools were negative. Twelve hour roentgenograms showed distinct gall bladder shadows in all the subjects.

Further tests Following this preliminary trial the test was repeated on 12 other supposedly normal subjects and then was util ized for diagnostic purposes in 50 patients. By fluoroscopy it was found that with the double safol coated pill a large proportion of them went through the alimentary tract without

per cent of the normal subjects and o, per cent of the patterns. In a small number of cases the films were poor hecause the patent could not hold the breath. A number of the others who did not show shadons gave clinical evidence of gall bladder disease. One of these proved to have a pathological gall bladder and operation. The absence of a shad ow by the intraverous method has meant a pathological condition of the gall bladder in 100 per cent of our proved cases (6) On the whole the shadows produced by the oral method were less den e than those by the intravenous method with the iodine salt

tralize any phenol present and to remove the undecomposed salol from the intestine

More expenence will be needed before final conclusions can be reached in regard to the comparitive value of the oral and the intravenous methods of giving sodium tetranodo phenolphthalein for cholecystography. Both methods may be capable of improvement but at present the oral method has several important advantages. Some of these are that it is convenient both for the patient and the physician that it can be used by any roent genologist in his office and that in general it gives fewer troublesome symptoms. The advantages of the intravenous method on the

with our present knowledge of the oral method for cholecystography we would sug gest that patients suspected of having gall bladder disease first be given the drug by mouth. If a normal clearly outlined shadow which diminishes rapidly in size during diges

results to date by the intravenous method have yielded correct diagnoses in 95 per cent of our proved cases (6)

Thim fit or mik hipdly by tong L

SUMMARY

The oral administration of sodium tetraio dophenolphthalein is being used in this clinic for cholecystography in the form of pills coat ed with salot in syrup of Tolu

for cholecy stography in the form of pills coat et with sall in a syrup of Tolu Cholecy stograms have been produced in 03 per cent of normal subjects by this method We advise the use of the oral method first in cases suspected of gall bladder disease to be followed by the intravenous method in the few instances in which the result with the former is not conclusive.

The advantages of the oral method are that it relieves many patients of the hospitalization necessary for the intravenous method and that it causes them very little inconvenience and few unpleasant symptoms

BIBLIOGRAPHY

GRAHM F A a d COLE W II R tg lg e m to ofth gall bi ddr Prelumnar prop tof a ne method ut lung the ta no nyectr not tel br mph lphthal in J Am W Ass 9 4 1 x 1 6 3 GRAHM F A COLE W H a d COPRER C H

I x 1 6 3

GRAHAM F A COLE W H a d COPRER C H

Vi a luxitora I theg ilbi dir by the rod m salt of
t trab omph n lph th len J m W Ass 9 4

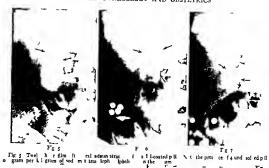
ix 277

Id 277

4 Id

6

S MHITAKER L R nd MILLAEN G A omp rson



exhausted The past in the sin hed on his right side during the period of taking the pills and for an hour or more thereafter. The next morning the pittent comes to the Vray department and reentgenograms are made is and is hours after taking the pills no food being eaten meanwhile. After the is hour film the patient exts a meal and an hour afterward more reentgenograms are made. The purpose of these films after the meal is to see if the gall bladder shrinks down during digestion which indicates that the gill bladder wall maintains its normal contractifity (Figs. 6 and 7).

SYMPTOMS AFTER THE SALT IS TAKEN

Of 44 persons thus tested whose symptoms were recorded 27 had no symptoms what ever 5 vomited one to three times 5 had a mild diarrhea 7 had slight nauser. These reactions were not so severe in their effects upon the pittent as those which sometimes come after intravenous injection of the salt. The vomiting with the oral method is probably due to gastire irritation by the drug on

account of imperfections in the saled coat of the pills or possibly to the saled itself while the vomiting with the intravenous method is probably toxic

In general the effect on the patient is much less noticeable with oral than with in travenous administration. After the former the patient in most cases feels perfectly well while after the latter he often feels somewhat energated.

There is one caution which should be observed in the oral administration of sodium
tetraodophenolphthalein in salot coated pilsSalot is decomposed in the intestine into
salicylic and and phenol and with the large
dose of salot given in the coating of the pilsthere is some danger of phenol poisoning.
This is apparently slight however since the
maximum amount of salot ingested would be
about 20 grains and none of the 66 individual
in our series showed symptoms of phenol yosoning even though no measures were taken
to countreart its effects. We would advice
honever that a dose of magnerium sulphate
be given affer the last roentigenograms to neu

DEPARTMENT OF TECHNIQUE

INTERDIGITATION IN THE REPAIR OF LARGE VLNTRAI HERNIAS WITH OBSLRVATIONS ON LIPECTOMY

BY I MAYNE RABCOCK MID FACS PHILADELPHIA

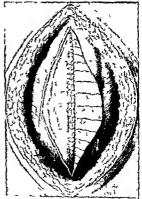
I he operative treatment of ventral herma it is not always easy to obtain an enduring closure of the defect. Peculiar problems of

smallest number of recurrences

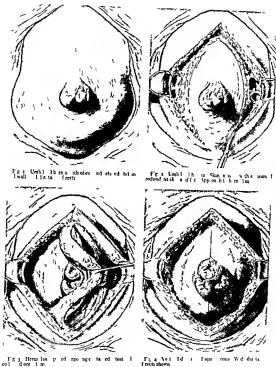
Frequently the sac is quite thick and strong and if sacrificed tissue is lost that might give added support and that compares well with a transplant of fascis lata. With a large disatiss, the stretch of aponeurous between the rects may be used to reinfore the union. A method of using the aponeurous of sac by cutting it into ribbons which are interdigitated across the wound is here with presented. The effect produced resembles that from interlacing the fingers of the two hands across the abdomer. We have occasionally used this method for severity ears not a not have been



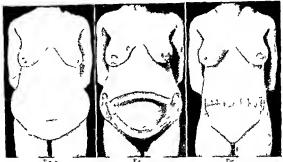
Is suppromined the fet wheen for open out fig. I near the formula dealers to off a dint d fint suppled utures



Fg 6 Rects apposed Tass di of rono notice flap neo brad ribbo e mpleted o the left fie



Interdigitation in the Repair of La gellent al He iax a th Observations on L pectons -Il Bayne Babe ck 852



F 9 Rela d nd g g abd m sal 11 howing d to all teral 12 p of ski and fat to mp eth 1 h d pla em nt 1th umble com alco tour Fg Ta e el percomy with the remo tof ad Fi 1 Wound closu eaft 1p tomy

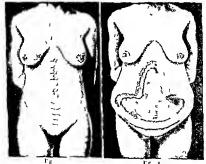
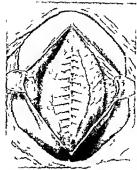
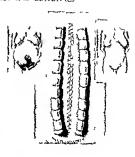


Fig. 1 pectrary by a n flag etc. 1 Hp e f sk a d fat. Would like f c. mb. it. firm e and ricall pectrary fixed bl t hot that n belomm 1. Il sell stred c the ed d ancy erth has



Fg 7 Ribbo I rmed from left flap I poneuro a d s at nedf the right the efrom the right flap to the) it i terdent t d a d fa i a d a bo H l inter pted su ures

impres ed by the strength of the closure and it advisability in selected cases. It may be em



Dt 21

fat broadens the abdomen and produces unsightly projections at the ends of the wound To improve the contour we have excited smaller vertical

tis ues of the anterior abdominal wall that the

most important for visceral support. The oper ator who has had his hind in the abdominal cavity of a patient straining under an esthesia will have been impressed by the great intra abdominal tension produced by contraction of the parietal muscles and the support that the pres are gives

LIPECTOMY

suture meet. At this point some herro 5 h av occur particularly if the kin has been greatly undercut

> TECUN DUE nm had th exposed

ous or by interrupted sutures from the perstoneal

CONCLUSION

Interdigitation is offered as an additional method of supporting the defective anterior ab dominal wall. It is not a universal method and often it is not applicable. In correcting a ventral herna the wie surgeon will select what is best for the particular cise not forgetting recognized.

methods such as closure in layers with imbrication (Fig. 14a) closure by wide vertical overlapping of the aponeurous as suggested by William Mayo (Fig. 14b) by a wide transverse overlapping or the remforcement by fascall transplants or sutures of fasca. or even by alten support of silver chain filteree or other material.

ACUTE INFECTIONS (SPECIAL REFERENCE TO PELVIC INFECTIONS)¹

BY THOMAS I WATKINS M.D. FAC'S CHICAGO

THE subject of infections especially related to the pelvis is too large for detailed discussion. I shall endeayor in this short article to stress some very important points in the treatment of infections and to emphasize the part taken by Nature in combating bacteria.

Infection not influmention. It is important to differentiate clearly between infection and in flammation as one is the cause and the other the result of disea e. The nomenclature of di-eases should be made upon an etiological basis. Infection is a disease and is essentially destructive to the body in Hammation—its—comprises the

siund of the body inflammatory reactions occur in the it sues of the body. Infection has always a definite meaning whereas its is indefinite as a timajor man not be infective in origin. The error originated because inflammation and tits were established before much was known of infections—when the die ease was con inferred a local mahady. For some years in my teaching I can employed infection instead of inflammation or its and have been much impressed with the

its and have been much impresed with the benefits derived from the use of this change in nomenclature. Why continue to confuse cau e and effect?

. (1

invading bacteria much as a community in times

exudites and adhesions have characteristics similar to fortifications wire entanglements and the like. In both in tances serious damage results

to sue pathology of infections

Not long since tissue pathology predominated the interest in medicine. The work of Loui Pasteur and tho who have followed him in the study of infection and immunity have demon strated that the more serious actions and reactions of infections occur in the fluids of the body. The battle bett een the body and the mading

to sys

ons

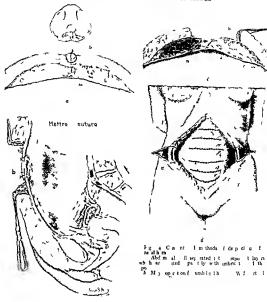
If we much does the trace reaction limit the extension of the infection?
 How much does it aid in the destruction of

bacteria?

3 May it provide a media for the growth of bacteria?

4 How and to what extent does the presence of pus modify the effect of the local inflammatory reaction?

These questions are of pecul interest to the surgeon as surger; is largely concerned with its sue pathology. The knowledge obtained from laboratory re earch and clinical ob ervations in



nal ring and are fastened in position by satutes of chromic catigut or other material. With a large asc, the ribbons may be a or more cratimeters in a closure. The same properties of the closure. If the abdeninal walls are unusualty wark an additional reinforcing statute by fine burned silver chain may be considered but rarely should be necessary where interdigitation as fea-

thle Hamostasi should be as perfect as possible. In the skin closure supporting mattress

like and the tension at any time may be redu ed b, removing part or all of the roll cases with the same re-envations as were enu merated under puerperal infection. Unles the ab cess is large and superficial it is generally better to postpone surgery until immunity is established and then to do sufficient surgery s need be to gue good assurance of a cure

CONCLUSIONS

1 Infection should be definitely di tinguished from inflammation. Infection is a disease-an secondary importance

enemy of the body inflammation is neither a it case or an enemy but is an ally of the body 2 Infection is a battle between the body and

invading bacteria 3 The conflict takes place chiefly in the fluid

of the hody -is essentially a naval battle 4 The study of strategy is the study of im

The treatment of acute infections should be

PHALANGIZATION OF THE FIRST METACARPAL

1

BY DR CUILLERMO BOSCH ARAMA BURNOS AIRE ARGENTINA

P (so Fooly fM d M mb fth F ! fth & t 45 g 1P6 H pt) construc 11 45 4 ĥnσ τ In the 8 ft sthat is d laured an haa (id nt h h diearned t wit and t u the lit ha d d it rou ly

knotights of this his olac thit should

had hed the Island of the thumble he nd ab a the hand as tet hed id the utlas of the 1 d a I the p m he c f the tirst m t arp l w

mal tump a seless wh th patient attempt of t tak h ld I objects and the physiological grap I th

TECHNIQUE

Th idea of the operation was accepted with enthusia in Operation was performed under truncular anæsthesia of the forearm and circular subcutaneous anaesthesia of the hand

Fi st step Dorsal fleshy tissue A triangular ares of the dorsal fi shy to sue was outlined This area began at the outer surface of the hand near the metacarpophalangeal joint of the second velopment of a general immunity Some excen-

k k 11 ...

m the uterine sinuses which often result in epiembolism Our mortality and morbidity in puerperal in

indirectly under the treatment of ome pelvic in fections

TREATMENT OF INFECTIONS

h 1 1

very virulent type of streptococcic infection and these are relatively uncommon Of late little has been said about incision and

known as for want of a better term sustaining

body resi tance. In pelvic infections no pecific therapy of much if any importance has been found The serum therapy for pelvic infections has been confined chiefly to the treatment of puerperal infection and it has not proved of any

special value The value of proteids in acute pelvie infections such as the injection of sterile milk is still in the experimental stage. The same cems to be true of the intravenous use of antisentics such as mercurochrome and anilin dies We have not had ufficient experience to pass judgment upon these remedies The work of Piper Hugh Young and his assistants has created an interest in intravenous antiseptics. It is significant to note how ever that there I not much evidence of their usefulness in the treatment of streptococcu, in fections On the other hand they have cemed to be of real use in some cases of staphylococcus and colon hacilly infections

I accines It would seem illogical to use vac

disturbance to the patient

drainage Experience has taught that the puer peral pelvic exudate nearly always di appears

fections and then recovery has to depend upon the develor ment of a general immunity

Ion pue peral infections of the fallobian tubes The treatment of acute infections of the fallopian tubes has all o become largely non surgical Observation has demonstrated that many of these patients recover without operation even in cases

local reaction in chronic ca e

What is known as supportise treatment con ists thiefly in supplying the infected body with things which are known to be most reportant to the well body. This type of treatment has been well established in the cure of tuberculosi The outdoor treatment : probably just as impor tant in other infections as in tuberculous infec tions. The more acute the infection probably the greater the need of this type of treatment

Surgery The treatment of puerperal miections

sufficient time will recover without operation an these cales however it is important to give



Tg 5 St mpp duced by per ton Fg 6 Prooch sis f rihe ibumb D

Fig 7 If thetic res It is perf ct

along the metacarpal base of the thumb the muscular fasciculi of the adductor of the thumb the vessels and nerves and some fibers of the short flevor of the thumb were left bare (Fig. 3). Thus step Muscular resection of the adductor

The adductor muscle was dis ected and severed

inis means we extirpated the whole transverse

adductor muscle. Ha mostasis was effected Fourth step Must ular reaction of the interosteous space. With the interoscous dorsal muscle a technique similar to that applied to he adductor was carried out that is to say the muscle was dissected and its cossous insertions, where we evered on the irist and second metacarpal and then it was freed toward its digital evitrently by cutting its tendinous part toward the extensor tendino of the index finger.

These four fundamental steps having been carried out we were able to sever the relation between the fir t and second metacarpals that is to say we severed the intermetacarpal muscular barriers and rendered the metacarpal of

thus covering the second metacarpal (Figs. 4, 5). In turn we passed the palm pedicle over toward the back surface thus covering the first meta-carpal (Fig. 4). Both pedicles are crossed through the intermetacarpal space and their edges must correspond util the respective edges of the palm or back, of the brind since the dimensions are noticeably alike and they must be



opportonal movement because this muscle re

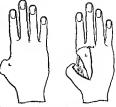
Fg 8 Abducti n spe fect Fg 9 Oppos in s perfect



Ig Roets gam h & du of patients

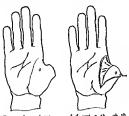
finger extended toward the outer edge of the inter digital fold and then to the inner surface of the

inner side so that it would terminate at the base of the second metacarpal (Fig. 2). Thus, this hap had the shape of a ught angle trangle the base of which corresponded to the outer surface of the second metacarpal. After the issue was cut it was dissected looe together with its base. The eproved the muchar fibers of the first interovesces of all space and ognet acceptable the state of the control of the con

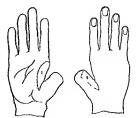


Fg | f d d ssect f dorsal t gul flap with the cond m is a spal base

Second step Fleshy lissue on the palm. An other transgular flap with fleshy pedicle was out intend on the palm. This started at the same spot as did the dorsal pedicle in the vicinity of the metacaropholian logical articulation of the second metacarqual extended into the palmar surface and ran almost parallel with the first incision for 5 millimeters. To the outer side of the upward flevion crease of the polar the incision was ex



Fg 3 L func delsect a the ghath t gular flypart fth plan th th f tent 14 a b



Fra Skaplat B alped! palm ped!



Fig 1 Recents gram of the sill and that the both in tirricius it is that the new edin pat y for a unitary had fractured



Shar Person

injury

a and an an an entire than this tas

STECH INICIL POINT OF VIEW

Here in America we have been sort to cen sider the c problem more from the mechanical than from the both of land physiol gical points of seen largely under the feadership of Albeet in hom of land.

hant e pecially with extensive loss of substance in the boar defect. But even mechanically the disproport which a limit of

ra

man union in this di sppointin, in chance. Cre quenti union would take place at one end and not at the other probably from madequat or too bref fixation of the 100 mechanical and too little

ton I's a

My S Surface of Surfac

For sand s. The arms rest sed to entre u el l'ess if l'enta sa of most on l'p of the ce a so embedded in the b ne that it ould not be tetta hed and i seen

biological or trosson a w forming method plus muscle contracture or torsin. Head room of the Mayo Chinic suggested massive bone grafts to meet some of the edifficulties

THE PHISTOLOGI OF BOVE REPAIR

If we consid

and almost c

Take for example osteomyelite neither the endosteum nor the cortex play a notable role in seron In the periosteum problemates and ne has a temp reased circumterence known as the involucium with necrosis of the central elem ats a the equestrum or in amputations if by chance the neme cum i not cut away at a hu ner level than the bone cotter we find sub cauently painful owteor hi tes have formed good ing into the sturns and from the proliferation bone forming perto teum which require removal and strippin sa k of the periosteum a speris. From the medico-regal standpoint not only of s rious im pert to the surge in but to ex usity ompanies as sel that unfortunate e ndition occurs more often after elbon itreta er anown a myositis a if thet

clbo teun

has taken place around the joint and into the muscles destroying function and the period cum is the locu and ource of this mu fortune. Other

SURGERY GYNECOLOGY AND OBSTETRICS

carefully sutured so as to obtain a speedy healing

962

My colleague left the sanatorium and went home where I removed the stitches a week later Massage and mobilization of the phalangized metacarpal were then started The stump prowere de irous of acceding to his wishes and con sequently undertook the reconstruction of the

capable of performing active and passive move ments of the thumb adduction abduction and opposition (Fig. 6)

The phalangized metacarpal may be used without a proxibess for otherapy purposes for it provides the patient with a digital forceps short but useful in every sense. The hand however is not perfect and ideal from an asthetic point of sew but from a practical standpoint it is entirely useful and perfect and justifies all our aspirations in undertaking the task.

Our fri nd and colleague wished as may logically be supposed to achieve the surgeon's desideratum to produce an ideal thumb. We

mounted on a leather funnel and fitted the meta carpal stump perfectly. The prosthess was held and supported by a common kid glove finger specially fitted which extended over the meta carpal and was fastened with a wrist bracelet (Fig. 6) As the prostless is covered with the finger of a glove the stuthetts are perfect and the loss of the thumb cannot be detected by the most practiced epe (Fig. 7)

education in the use of the hand must complete our work

NEWER METHODS OF TREATMENT IN NON-UNION OF FRACTURES

BY R. TUNSTALL TAYLOR BA. MD. FACS B LTIMO E MARYLA D

h d

f n do

subsequent closed reduction interposes muscular tendinous or other fibrous tissues but there are exceptions to this as will be stated applyin to both closed and open fractures

The cau es of non union other than the inter

ment and close approximation as in by 41 t larger group of ases responsible for the non union and may be explained by an absence of the

fractures

CAUSES OF NON UNION

n n

en tu

un mı



t 6 Ca R tge ogram ho gihe e ten e call firmat on a d firm ni ft apple t n fihe teo; i teal g aft nd bo clam?

No c lo serand report 1 cases of congenital

it useful chiefly in the cases of extensive loss of ubstance (bone and other structures) and

of absence of the fibula and in a third only par tially successful. Before the Lyans surgical society in March 1920 he showed a 7 year old

(Graff Ab e mouns of the same or other side

3 by
Dujar e in
non ut lely
epara u iii i jog Codivilla of Bologne u ed the
o teoperiosteal graft for non mon m the juba
and cut it in pieces which were tred by categor

around the fragments bridging the defect like board Fr ehlich? of Nancy seems to b

the importance of all observing into the medulla of the fragments to aid nutrition and basten require He reported in imilit cases two successes and it is failured at the IV Congress of German orthopædic surgeons



Fg 7 C se Roenic r msh ng the app oruna ton of the ad al ir me t Um n th re also w ll be re d by obtuned

Mauclaire² cured a young man 1gr 2 who had had fourth of

fourth of
Dujarte
with non union of which 62 or 90 per cent were
cured by the osteopenosteal method and of these

15 had both bones fractured
Thus we see that in France the method has
been extensively employed by variou surgeons
with succe s

NEGLECT OF THOROUGH MECHA ICAL HINATION

The American surgeon in the writer's opinion would believe except when there is very little los of substance or close approximation of the fragments and easy maintainance of alignment that the osteoperoideal grift alone seems too films) to offer or maintain support and that it is not mechanically correct enough to maintain facation and inamobilization even with a well applied plaster cast such as the Irench rely on Thi would seem especially true in non union of forearm features, when the mix of no of forearm features when the mix of no of forearm features.

METAL IN BONES

Ameri an surgeons are getting away from the

may at times be justified as are small wire or screw tration in more superficial bones if other means fail. Band and clamps do not interfere less

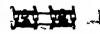
Marcine Society P of Jty D or John 95 55 South P of t

c

a

I





Ig 4 d 5 C R * tgen grom f v g the c d 1 p o to f at p at

traumatic instances may be cited such as o teomata o teochondromatosi and osteochondrius dis econs in joints

The pert steam. Thus we recognize this chief bone firming function of the periosteum. The external or fibrou layer of the periosteum is chiefly protective and infection re isting while the camlium or internal viscular layer contains with the underlying superficial bone layer the otto lastice to bone formum cell.

THE OSTFOPFRIOSTI AL CRAFT

It is chiefly to General Henn Debignance of Re Mans France following the sugge tree work of Ollier that we are indebted for the intro luction of what he has termed the obstoopprosteal grifts by which are meant grafts consisting of periodeum chiefly with a layer of und rhing bone the thicknes of a ten cent piece. These contians the most abundant supply of o teogeneue costed lasts and repair in more sure and rapid

VicWilliams! from stati ties on 1390 collected cases of non union operated upon gives the per centage of succe ses by various method as

of fibro is and deformity as important factors

tion of eration may be invaded

hofk in a

an osterperi) teal graft from the tibia into the forearm (Italian graft) and sub equently tran

like a leeve

Ch Dujarier reports 100 succe e with osteoperiosteal grafts an l that the emsolidation was run l

CONCENITAL NON LYION

For congenital absence of bone or con ential (intra uterine); eudo-arthros the same author in conjunction with M. Perrin reported five successes in arms and legs some intofixing both

different method

10 F) Te U t

Deliger re d'Le ur Gynec & Oh

D'I er Ch J i h rv.

R h I Ore II d'h rv.

C d'H N L Co g' er t d'm d B I pes

h Epsemal Ly m d

and churnated or fibrosed bone to prevent sepsas and to improve the blood supply to correct the deformity and thereby prevent unnatural strain after grating is done to prevent the likelihood of hematomata at the second operation after the graft is in place with its tendency to fiften or infected hematomata and finally to demon strate latent sep is if present which will at once manifest it elf. As soon as possible after the first operation vigorous massage, manipulation and heading of the suspected area should be done through the dressings and if latent sepsas is still pre ent it will show itself and warm us not to pro-

COMMENT

Many methods have been employed to hasten and even to produce union in congenital p cudo arthrodeses delayed union or non union in bones but the one that chiefly commend itself to con ideration is one that furm he itssue rich in complete and other of eegenetic ageneties or forces such as the osteoperiostical graft which obeys biological and physiological requirements plus rid and pra onged mechanical traition as obtained by a bone clamp that will a ure shipn

ment and at the same time not interfere in the least with the blood circulation in bone or

periosteum

It is conceivable that we may secure this by means of both a combined Albee inlay and Delagunère osteoperio teal graft as one or sepa rate elements. The latter needs no explanation has been made to a combined to the combined t

in one piece

CONCLUSION

As the osteoperosteal graft is rich in bone forming and infection revisting elements it should be more widely used and more generally adopted by American surgeons in treating cases of non-union infactures. It has found its place abroad especially on the Continent and the u duline 3 of the method it demonstrated in my cases in which secure fixe so: use afforded 11 add from 0 the osteoperosteal rafi.

A study of the \(\nabla_{13}\) in these foreign cases strikes one as showing a simuous or irregular out line in the new forming bone from unstable fixation. The author therefore urges that with the adoption of the osteoperiosteal graft his tech inque and the bone damping to secure proper all, ment in fragments and in the developing bone be used.

!

B J wr

ı

with bone nutrition than does metal that goes

With these thoughts and an experience lased upon them in mind I believe that it may not be amiss to report a type of each case of non union namely closed and open fracture of the forearm in which the prol lem seemed to be to stimulate o togenesis which was lecking and to maintain perfect digment even in the open case in which there was extensive loss of substance prolonged suppuration and fractures of both bones.

This work was undertaken quite independent ly by the author at a time when he was not fr miliar with Delagéniere's method. It was based on surgical reasoning

ı

jritj fp ti ts wh ha 1 s faubst fithe radith ma had a frem ly bo d m d m k d pomme e fth lar tyl d r lt fin scul ta 1 ch fly the s p st f gus d fl r m ad ! The a tity o ther d ll f ll h dh d

the osteopenosteal grafts rather than to diet although I urged that the di t be freely of calves liver (for phosphorus) and green vegetables plu calcum carbonate and cod liver oil as medicines

THO STAGE OPERATION IN INFECTED NON UNION CASES

M F Fortester Brown of Edinburgh empha izes what has been the practice of many of us and to which we agree that reconstruction of old in 3 It e onnce funnel (glass or white enamel) Twenty inches of rubber tubing (size to fit funnel and glass connecting tip)

Rubber catheter Size 20 or 2 French Those made of red rubber hecau e as they are stiffer they are better than the e made of brown rub ber A rectal tube should not be u ed as it per

connecting up to the cutheter leaving part of the glass evpo ed. This will be found more con venient than attaching the funnel to the catheter directly and it all o permits one to see through the glass connecting up when the last of the fluid from the funnel has a ed into the catheter

4 1rt ry clamp Used to clamp the catheter DIRECTIONS TO BE CARRIED OUT IN THE FOLLOWING SECUENCE

r Enema When the patient goe into labor

given within 8 hours after the initial enema repert the latter just before administering the morphine magnesium sulphate. The enema hould not be given just before the instillation, but if this cannot be avoided any water which may remain after the movement should be syphoned back with a rectal tube before the instillation.

2 Morphine magnesium salphate injection (a) Time of admini tration \u22130t too early but when labor 1 well under way so that the morphine w 11

Ä

to 45 seconds the patient complaining of the pun it; well to make an eximination (if the phy ician is with the patient) before giving the morphine magne ium sulphate though thi is not neces ur. It is best to have the cervix at least.

Cive the injection during an active pair when the di comfort will be less noticed Lell the pa tient that the ol ject is to relieve pair but do

inge are sterile. The contents of a 2 cubic centimeter ampule containing both the one quarter of a grain of morphine sulphate and 2 cubic centimeters of a 50 per cent magnesium sulphate are

needle horter than the one advised (Do not u e ordmary hypodermic needle) This method is to be preferred since it is the cleanest and least pain ful because the smallest po sible amount of fluid

Morphine sulphate grains one quarter is die solved in the usual way in a teaspoon after water has boiled in the spoon. The morphine sulphate solution is drawn from the spoon into 1.5 cubic centimeter syringe containing the cubic centimeters of 50 per cent magnesium sul

phate The injection is then made as above Note that morphine sulphate does not dissolve readily in a 50 per cent magnesium sulphate solution. If the tablet is thrown into the birrel of the syringe containing the magnesium sulphate solution considerable shaking 1 required to di

sulphate (a) The patient should be kept quiet

ward screen the bed if in a room lower the

and tall out of hed

(b) One half hour after the morphine magne sum sulphase injection give a second intramus cular injection consisting of a cubic centimeters of 50 per cent magne im sulphate alone. The 15 given regardless of whether or not the effect of the first injection is sedature the second in jection tends to prolong the action of the mor phine.

4. Like instillation If the physician is with the patient it is well to make an extramation before giving the instillation though this is not necessary. It is best to have the cervix at least three fingers didated.

() T ...

AMELIORATION OF LABOR PAINS BY MORPHINE-MAGNESHIM SULPHATE INJECTIONS AND COLONIC FTHER INSTILLATIONS

DIRECTIONS FOR ADMINISTRATION BY METHOD FACILED AT THE LAING IN HOSPITAL OF THE CITY OF NEW YORK

By ASA B DANIS AID FACE A WAY

t

Y I January 1923 the idea of amchorating la bor pains by a harmless inexpensive method which could be used by a physician without

special training in the home or ho-pital and which would employ drugs in common use wa conceived by Dr James 1 Gyathmey and suc ces, fully carried out at the Lying in Ho pital of the city of New York with the co-operation of the attending surgeons hou e surgeon druger t and head nurses of the hospital. The method which was adopted is described

DRUGS NECESSARY

Magnessum sulphat with morphine (1) Am pules containing Cubic centimeters of a terile 50 per cent solution of magne 1um sulphate (C P) together with a quarter of a grun of morphine

(b) If the alove amoule (a) cannot be obtained a quarter of a grain tablet of morphine sulphate may be di olved in boile I nater and mixed with the contents of a 2 cubic centimeter ampule of a sterile so per cent solution of magne

sium sulphate (C I) 2 Magnessum sulphate \mpules containing

sulphate

Qun ehad b mat Alc hol 1 th r Ol ol(good qu lts) pt

First mix the alcohol and the quinine then add the other and the olive oil. Stir the mixture and strain through cotton. Bottle and cork well This may be kept at room temperature and i fm h

Two bottle containing 20 grains of quinme tone for emergency in ca e part of the first in tillation is expelled) Two bottle containing only 10 grains of quinine for ubsequent instillations Label all bottles carefully For a large ob tetrical service

it is not advi able to make up the retention enema

ounces each and placing in 10 bottles instead of pouring 4 ounce or one instillation from the 40 ounce mixture when needed

4 Olice oil 4 bottle containing 2 ounces of alixe oil

In al g ob tetrical s rvice here economy m t be con d'r I qu'nine (vikaloid) can then be used

Qu (liai i) Lo in trolat m (he a) at

I rect on fradmin t rig the liq d petrolatum are the same as when olive oil 1 u ed

APPARATES NECESSARY

1 Class syringe (a) If the 2 cubic centimeter ampule containing both the morphine and the

usual way in a tea poon with some boiled water more than a cubi centimeter of water is u ually used and the together with the 2 cubic cents meters of magnesium sulphate would require a cubic centimeter syringe

2 Veedle One that fits the syringe the kind usually used for intramu cular injection 1/ inches long 10 gauge

DAVIS MORPHINE MAGNESIUM SUI PHATE INJECTIONS AND COLONIC ETHER 871

rectal or vaginal examination too soon after an instillation or the instillation will be expelled if possible wait at least one hour. Do not be musted (especially in multipara) by the quiet ap sections or instillations or both relieved her pain and to what extent

SYNOPSIS OF PRECEDING DIRECTION

r Give enema If the morphine magnesium sulphate injection is not given within 8 hours after the initial enema repeat the latter just be fore giving the first injection

2 When contractions are strong and coming

therefore should be watched carefully at all times just as though she were not under the influence of the analgesia. The intensity and duration of the contraction should be ascertained by means of abdominal paintion the perineum should be natched for bulging and the fetal heart should be counted

(c) When the effect of the first ether instilla tion has worn off ie the patient again com plains of pain a second and even a third instilla nam h gya m 1 of 1/h

(4) A gram morphine with a choic centimeters of so per cent magnesium sulphate

(b) 1/2 hour after first injection give 2 cubic centimeters of 50 per cent magnesium ulphate - 1 - - n f h d

latation)

of 50 per cent magnesium sulphate

6 Delivery Amesthesia given by inhalation

delivery. If too much is given by inhalation, the baby at times i born slightly appæic neverthe less this condition is transitory and respiration

is always e tablished If er de ners To ascertain how much re hel has been obtained it is nece any to question the patient. We cannot judge by her actions during labor at times after administration of the drugs the patient remains noisy and restless dur

ing uterme contractions this would give the lal = L --

ether instillation

(c) When the effect of the first other instilla tion has worn off and the patient again com plains of pain give a second or even a third ntll on Shan

4 1 CHOW the initial and all subsequent ether instillations with a culic centimeters of so ner cent magnesium sulphate

Important Presautions

Do not begin injections or instillations too 1 6 2 2 3 -

ministration of the drug and yet on being questioned the next day will state their pains were not much relieved. In either case they were benefited All questioning should be done not earlier than 24 hours after delivery Since the patient was not promised a painle's labor she should not be a Led whether she had any pain she should be questioned as to whether the in

be watched while asleep as she may turn from

worn off It; casier to give when the patient is still under the influence of the fatter and more

11 I be 1 out entires and to withinoid the in stillation until the patient is again complising and 3 to 5 minute contractions are good and strong. This is better than having labor retarded because the instillation has been given too soon Patients to whom the morphine magnesium sufplate has leen given toward the end of labor often deliver before there is any indicate in for the other in thillation.

If there 1 no relief from the morphine mag nesum sulphate within 20 minutes after the second injection of 2 cubic centimeters of 50 per cent magnesium sulphate alone give the ether instillation. The ether instillation should never be given sooner than 50 minutes after the first injection of morphine magnesium sulphate

(b) Method of admin tration. Warm to about book temperature the bottle contriuming the elemixture and also the bottle containing the paounces of olice of by letting the bottle still in narm water for a few minutes with the corts, loo uned or removed. Loosen or remove the corts, let they blow out and cause confu ion and loss of part of the mixture.

I lace the patient on her left, the with the batto kan the side of the bed and apply a e line literally about the anus so that the either of expelled will not burn. State to the patient just before beginning the instillation that its object is to relieve pain and thus secure her co-operation but do not prome their painless ribor. Till ler that during the administration she is not to press down duting pains but to breithe deeply with

and permit the fund to tail in of can.

Have an as istant hold the funnel as high as possible above the anus and pour into it one ounce of the warm olive oil. Just a the olive oil runs.

common in primipata at the beginning of I bor the gloved finger mu t be instited into the rectum with the catheter in ord r to make Leth t it passes the head or else the fluid will not be retained. When the catheter has be no increde it must be held constantly in place so that it

released and the contents of the funnel per mitted to run into the rectum. The remainder of the ether mixture is slowly added at no time permitting the funnel to become entirely empty lust a the last of the other mixture is about to leave the funnel add the remainder of the warm oln c oil (r ounce) It will take the interval be tween three to five contractions, before the entire amount of the fluid enters the rectum. When the patient has contractions however hard she may try not to do so she may bear down a little and the fluid will return into the funnel. It is best therefore never to fill the funnel to the very ton or it will run over and some of the mixture es cape. If the patient bears down permit some of the fluid to return into the funnel as a little gas is then expelled. Then clamp the catheter so that all does not return into the funnel and urge her to draw up at this time If you clamp the

the glass connecting tip clamp the catheter to prevent air being drawn into the rectum. Nor make press ure on the aims with continuous ing the prached cathether the continuous continuous continuous continuous continuous concommets on make pressure over the aims during three or four contractions after the catheter is satisfiavan.

to run out of the catheter

With the clamp still in place the per on who is to give the instillation now in cits the cath eter into the rectum for about 6 to 8 inches If the fetal head is well down in the pelvis as is

of the ether

(b) The patient may now be on her bick or in whatever position is most comfortable for her that ame quiet is observed as after the morphine magne ium sulphate injection. Do not nake a

DAVIS MORPHINE MAGNESIUM SULPHATE INJECTIONS AND COLONIC ETHER 873

2 If the first morphine magnesium sulphate injection stops the labor entirely and good con tractions causing real pain begin only 4 or 5 Quinine hydrobromate and quinine (alkaloid)

patient may be dealt with as it no injection had been given i.e. begin the analgesia again with morphine magnesium sulphate etc.

3 When the patient is first seen if labor has already advanced considerably i.e. the contract

once This may be used even if it is apparent

earlier to a patient who has had the morphine magne rum sulphate previously and is still a little under its influence

4. If the first ether instillation with 2 cubic injuries of per cent magnetium sulphate injuries has no sedative effect or even excites the patient and the actual birth seems far off a second injection of morphine grains one saxth with 2 cubic centimeters of 50 per cent magnesium sulphate may be given at once 1 e. before the

second ether instillation is given
5. If the first ether instillation with the 2 cubic contineters of 50 per cent magnesium sulphate

used 1e 5 grains of quinne hydrobromate 1/2 drams of alcohol 1/2 ounces of other and olive oil up to 2 ounces

PHYSIOLOGICAL ACTION OF THE DRUGS AS USED FOR AMELIORATION OF LABOR PAINS

p en ly en m

Morphine relieves pain softens the cervix

by the discretice is contractions when they were omitted from the instillation and by the fact that after the labor some patients complain of buzzing in the ears or slight deafness Postpartum urine examinations

in patients who retained the instillations show quimme.

Alcohol dissolves the quinine by drobromate and

the quimme (alkaloid) ... i.

ether in pr stated by

of the morphine as shown some years ago by Gn themy 11 causes paralysis without preceding crutation. The central nervous system how ever as affected before the perspherial nervous system therefore yours and consciousness are affected first much larger do even being required for paralysis of the motor nerve ending. There is a suggested for the amelioration of Jahor pains for a man weighing 160 points 218 injections of a country of the property
ministration of any calcium salts the latter reversing the action of the magnesium sulphate on respiration

RECARDING THE IREVIOUS USF OF THESE DRUCS IN OTHER BRANCHES OF MEDICINE

Morphine has been given to relieve pain and quiet patients in other branches of medicine

Eller in larger quantities than here used has been given by rectum with good results to pro

it would disturb others by their restlessne s Worphine with magnesium sulphate by intra

after operation to avoid a second postoperative dose of morphine

b By telling the patient she will get relief if the instillation i retained

is in rectum

e By making pressure over anus during three to four contractions after catheter has been re moved

WHY THE AVALORSIA SHOULD BE CIVEN

- 1 Amety per cent of the patients secure some relief many a great deal Poor results are often due to faulty administration and faulty mode fications
- 2 It can be used as easily in a home as in a hospital In the Out Patient Department of the Lying In it has been given to over 300 patients by the House Staff
- 3 It is memensive especially when compared to gas oxygen analgesia given over a prolonged period during labor
- 4 It requires no e necially trained person to give the actual injection or the actual instilla tion any trained nurse can give them. No special attention is required

The physician does not have to be present

at all times throughout the labor

6 The drugs recommended by Guathmey have all been safely tried out in other fields of medicine previous to their use at the Lying In Hospital

case or a case of placenta pravia is permitted to go into labor the u e of the analgesia is not contra indicated No presentation or position is a contra indication to its use

Contra indications Cohtis true diabetes and auditory disturbances are the only contra indications

8 The patients are quieter during labor un dergo less strain and therefore are in better general condition the day after labor is completed The other instillation relaxes the permeum

so that if anything the perineal tage is more fapid 10 The intramuscular injections can e no subsequent painful induration of the rouscle as do

A FEW LARIATIONS FROM STANDARD METHOD 1 (1

nationt is not suffering

Even if the drugs should prolong or stop the labor no harm a done and at any rate the

B The ether practically never stops the con tractions when given at the time directed. In the second stage the patient bears down in the usuai way

to be forcibly held in bed as was so frequently the case with twilight a cep

occiput is in the anterior position the analgesia however does not prolong the labors still more in such cases 13 There is no subsequent rectal irritation

mercury injections Abscesses occur no more fre-

quently than with other hypodermic injections In over six thousand injections only six absces & developed and in at least four instances these could be traced to faulty technique 11 By comparative statistics at the Lying In

Hospital operative deliveries asphysia of the

fetus during labor stillbirths and postpartum

hæmorrhages even if the delivery occurs within

I hour after the morphine magnesium sulphate injections are not more frequent than if the

12 When the occuput is in the posterior po sition labors are usually longer than when the

only occasionally a slight burning sensation dur

ing the instillation 14 Vomiting during labor is only a little more

frequent than that observed in labors without the analgesia 15 If it excites the patient she does not have

method had not been used

labor slightly

cubic centimeters of 50 per cent magnesium sui phate

although quantitatively it is of course very much lessened Such patients commonly report that they menstruate quite regularly and often for just as long a time as formerly but that the amount is very scanty When only a small

erved ovaries is much prolonged by retention of

a portion of the uterus It need scarcely be said that such an operation as we are discussing is to be considered only when further pregnancies are impossible. Other wise it is ordinarily wiser to save the entire uterus. In many cases the uterus is in such a bad condition that its partial removal is preferable to the pre ervation of the reproductive capacity Here as in all other conservative surgery each case pre ents its own individual problem the chief factors to be considered being the age of the patient the number of children she has had the desire for more pregnancies the social and economic status of the patient the condition of the uterus e necially as regards adhesions to the rectum and other organs etc

It 1 also scaredly necessary to state that supra cervi al hysterectomy of the type we are now di cussing is not indicated where removal of both ovari a has been necessary. In these eases men struction will of cour e not be possible anyhow and there is no reason why any of the endometrum should be conserved. As a matter of fact a better technical result especially from the standpoint of peritonealization is possible with the usual hysterectomy of either the subtotal or total type depending upon the indication

The two best known operations aiming at partial removal of the fundus with conservation of menstruation are those of Beuttner and Bell The latter states that it i practically always necessary to remove the ovaries with the fundus and tubes and that the procedure must therefore be combined with ovarian tran plantation. This however is not my experience. Practic II

1 4 eu procedure which in the class of ca es ne are non discus in offers no advantage over the simple plan herein advocated After all it is conservation which needs emphasi-rather than any one pecual method of operation The latter can be varied to suit the individual case

The disadvantage of leaving a very large stump is the fact that the anterior bladder peri toncal flap cannot so readdy be utilized for covering over the line of uture without at times considerable traction and a possibility of Speaking postoperative bladder disturbance generally my own impression is that the risk of postoperative bladder unitability after hysterec

cervical type of hysterectomy is found in cases of uterine myoma where myomettomy for one reason or another is either impossible or in advisable Instead of amputating through the cervix it is often better to cut through the uterus sufficiently high above the internal os to leave from one to everal centimeters of endometrium Otherwise the technique may be virtually the same as after the usual subtotal hysterectomy and the stump can be pentonealized with the greatest ease and smoothness

A second and even more frequent indication for the operation is furnished by chronic pelvic inflammatory disease occurring in young nomen

one of several other plans of treatment-supra vaginal hy terectomy total hysterectomy sal pingo-cophorectomy with preservation of the uterus etc. The same thing is true as regard uterine myoma But a definite indication for the conservative type of hysterectomy is encountered in many ca es It is difficult to state indications

the expense of the more radical procedures

REFEI ENCES

Brin. The rg at tratment of I so s in the intern 1 g attal organs J Am M Ass 92 ltx 696
Bruttner D t reale fundal k lexus di Uterus is lor kt zur E trp tion do p ! tr

Mayo Con reat on of the menstrulf net on U.As. 192 1 20 1685 POLAK Pine nil mmatory disease in wom

REFERENCES

Magnes m S lph te

MELTZER S J and AUER J Phy 1 rol 2 and ph m c log cal studies of m gne ium salt x G rad a esthesia by s bout neous i ject ons Am J Phy iol

10 5 v 36-588 d pharmacol get 1 t des f mag neum saits 11 The nare (tar g ff et f m gn suom saits upon n ree fibres Am] Phy 1 906 xv 33 t m neum saits upon n ree fibres Am] Phy 1 906 xv 13 d m The a tag t c act on 1 cal m pont h hibit ry eff et of magaesium \ m J Phys ol 908

hibit ry eff et of magnesium \m J Phys el 908
rx 400-419
Metricer S J Inhibit ry a da e thet c p pe 1 s of
magnes ms in Med Rec 20 1 975
Preck C II nd Metricer S J A esthes 1 human

M gnesium S lphate with Eth Aver J a d Metizer S J The Ira en us niecti of m gnes im lphate fo sth mami J Expe M 196 x 11 64 -653 Gwarians J T Ane thes N w bork a d Lo d a M tmill Comp y 194 2d d pp 640-664

Via m Sulphyte with Morph

Gyathery J T Synergy to col cash, as J Am

M As g fre 222 25

Adams T W Am. J Obst & Coynec 1924 266-2

Magn m Sulphate Morph e Eth — Labor GRANID = T D D D O CORA

od G atu-Painl paper

SUIR CERVICAL (HIGH SUBTOTAL) HYSTERECTOMY WITH CONSERVATION OF THE MENSTRUAL FUNCTION

By FMII NOVAK MD FACS BALTIMOR From th G ecla cal D patroent tith J h 11 ph Med 1 hool

THE procedure advocated in this paper is one which I am sure is performed by all gynecologists at times In some form or another it has been advocated by various writers of recent years (Spincili Bouttner Bell Polak Cul bertson) I am certain however that its importance 1 not sufficiently recognized and that many surgeons neglect to employ this technique in cases in which its use would confer great benefit to the patient. The question of con ervation of menstrual function has revolved almost altogether about the ovarian function and most surgeons have wisely accustomed themselves to conserving healthy ovaries whenever possible Unless a portion of the endometrial surface is

to convince many patients that they have not been defeminized by such operations. Further more even though the courts be conserved the removal of the uterus as Graves has emphasized may in itself cau e unpleasant symptoms while while not usually as severe as those due to re

ground that the mere ab ence of the menstrust function is not detrimental to the patient's

welfare
From a life and death standpoint this i of
course true and it may be conceided that sooner
or later most patients adapt themselves to the
new order of life quite attifactorily. In others
however the psychological effect of destroying
the mensitual function is great and it is difficult

been so well presented in a recent paper by Dr W I Mayo

The practical point to emphasize is that in a large number of cases where hysterectomy i called for the menstrual function can be conserved with no possible harm and probably great benefit to the patient by the simple expedient in any patient possible harm and probably great senset to the patient by the simple expedient in commonly done. In the ordinary operation the amputation is done at about the level of the narmations and not infrequently even lower Usually however it can be performed just as easily from one to several centimeters above the internal os so that a considerable cuil of endometrium is thus retained. Men truston is reasonably sure to be maintained in such cases.

surface of the optic chiasm and the overlying diaphragma and pituitary body in some in stances a mere cleft in some a clear vertical of to millimeters. Thus the pituitary body would have to double in size before pressure was made on the overlying chiasm or optic nerves. Of great practical significance is the extreme variation in the structure of the dia phragma It was found to vary from a dense strong and save for a very small foramen complete roof over the hypophysis to a mere penpheral rim with a relatively huge infun dibular foramen The diaphragma may be more or less fenestrated or of compact struc ture One can readily see how these variations may influence both the direction of growth of the pituitary lesion as well as the incidence of headache. These and other examples might be cited to emphasize the important applica tion of these anatomical studies to the clinical expression of pituitary growths

De Schweinitz observations as to the mode of production of field defects in pituitary disorder will interest all students. He doubts whether the principle of pressure or traction occounts for all the field distortions for in stance the scotomata and although he recog uzes the uncertainties which exist he en leavors to make out a case for toxic influences n this respect based upon the relationships of he subarachnoid space to the perivascular paces of the pituitary structure. Anything thich de Schweinitz has to say with regard to he diagnostic significance of the ocular mani estation of pituitary disease may be accepted is an authoritative statement and the reader s referred to this section of his address for urther details

His address should reach a wider audience han the neurologist ophthalmologist or the neurological surgeon. He has reviewed lesions of the pituitary body in their relation to preglancy to patients after cophorectomy to

certain infections and toxemias. Altogether the address contains a wealth of information on pituitary disorders with a bibliography that is encyclopedic.

As to the treatment of pituitary disorders the surgeon is primarily and now almost ex clusively interested in the pressure phenom ema notably headache and impending blind ness Immediate recourse to operative inter ference is not justifiable in all instances When vision is not threatened glandular feeding and radiation should be considered While in the records of the Neurosurgical Chinc of the University Hospital there i not a single instance of the beneficial effect of glandular therapy semingly authoritative reports have appeared in support of the favor able influence of the administration of pitu stars and thyroid extracts. One case is recalled in which after a course of thyroid feed ing the hemianopsia and other signs of pitu itary disease disappeared. When the appear ance of the optic nerve head does not indicate atrophy even though there may be a complete bitemporal hemianopsia \ ray therapy is justifiable in competent hands and under proper supervision. The work of Beclere is well known and in our Neurosurgical Chinic we have had very definite and satisfactors re sults in two cases

The outstanding problem that concerns the surgeon alone is the method of approach Among those who have had the most fre quent opportunities for observation and the widest expensive there is a recognized difference of opinion some vascillate between the transfrontal and transphenoidal approach some resort exclusively to the transfrontal approach others express preference at least nail primary intraptituary lessons for the transphenoidal route. Whatever theoretical advantages may be advanced for one or the other of these methods for the time being the

EDITORIALS

SURGERY, GYNECOLOGY AND OBSTETRICS

THE B KA WIL MD		\ secule I t		
Wit TYN J AVA W D	cı	ſ	11 1t n 1St @	
IUNE	19.5			

In a sould M new atta

THE LITUITARY BODY

LITTLY by httle new light is being thrown upon the pitutisty body. We are acquiring a more intimate and exact knowledge of its anatomical relations. An annly six of climical types has resulted in a reclassification of original major groups more frequent resort to surgical attack has provided more abundant miterial for the study of the various pituitry lesions perhaps a little more is known of the effects of glandular feeding, certifully there is a clearer conception of the methods of dealing with the different chinical and pathological types

Of the recent contributions to the literaturof the pituitry body quite the most notable is the Bowman Lecture by de Schweintz! De Schweintz reviews a number of important anatomical observations which were made with the help of Dr. J. I arsons Schaeffer whose dissections of 1.5 bodies at the Baugh Institute of Anatomy of the Jefferson Medical College were utilized for this purpose

These anatomical studies are of especial interest since they have revealed a number of

The mileservalue fD y Parso Sch ffer q die th R wma Le m h lbor d all pen separa co trb by D Sh ff to i hoomang us f h Jose al. Anado y

inaccurate statements which at one time or another have appeared in textbooks and essays and without verification have been ac cepted by the innocent reader or student. Of particular interest are the observations on the position of the optic chiasma with relation to the pituitary body and diaphragma. In 96 ner cent of the 125 bodies examined the optic chiasma was located either wholly or partly over the diaphragma sellæ and underlyin hypophysis But only in 12 per cent of these instances was the entire chiasma found rest ing upon the diaphragma in 70 per cent the greater part of the chiasma had the dia phragma hypophyseal relation while the lesser part projected behind the dorsum sellæ and in 4 per cent the entire chiasma was be hand the sella. These ob ervations explain in part the very varied di tortions of the field we see in enlargements of the pituitary body Contrary to the prevailing impression a typical complete bitemporal hemianopsia is by no means a constant or even the most common field distortion as in so-called typ: cal manifestation it has been recorded only in about ore third of the eases of tumor of the hypophysis The important point is that the changes which take place during a typical de velopment of bitemporal hemianopsia are not individual types but constitute stages of an advancing process which usually but not always begins in the upper and outer quadrant of the field Many variations from this type are encountered In his material de Schweinitz found homonymous hemianopsia in 6 per cent of the cases

Another interesting observation was the

results of irradiation in the treatment of myomatous and myopathic transformations in the uterus. From this survey one may assert that such a controversial phrase as

surgery versus irradiation should be elim mated from current medical literature. Were such the issue the conclusion would be in controvertibly in favor of surgery. As to a choice between these methods of treatment surgical intervention would decidedly hold the vantage point for its merits have b en Irradiation in the established beyond cavil light of our present knowledge must without question be subordinated to operative meas ures and the judge as to its invocation should be the surgeon Because of the dovetuling of these two therapeutic agents every gyneco logical and surgical clinic should have radium as a part of its armamentarium

The application of this remedy should be made by the surgeons because it's employ ment is attended by definite surgical risks. On the other hand roentgen ray treatment should be supervised directly by the roent genologist for its dangers can be estimated and avoided only by the specialist trained in this novel branch of physics. Neither remedy should be in the hands of the novice for each is attended by great hazards if injudiciously employed

While the value of irradiation has been established it yields its best theripeutic results only to the careful diagnosticini who takes into account the size and character of the tumor its symptomatology the age and nervous stability of the patient and the associated or councident pathological lessons. In the gynecologic cline of the University of Pennsylvania we have for some time rested our decision as to the irradiation of these tumors upon one chief point and that is to submit confirmed another rule and that is to submit confirmed another rule and that is to submit

all tumors over the size of a four months preg nant uterus to operation unless there are such grave contra indications as to render surgical intervention a too hazardou policy Tumors which have as their chief symptomatic mani festation pressure effects should fall within the surgical domain whereas in those un complicated tumors of a size under that of a four months pregnant uterus whose sole symptom is excessive bleeding irradiation is the method of treatment par excellence pro vided the patient is beyond her fourth decade and that the tumor is not of the large sub mucous type Myomata in young women fall as a rule within the surmeal domain as a myomectomy or partical hysterectomy with preservation of the ovarian function is decidedly preferable to irradiation. A point relative to the irradiation menopause. At one time we hold as a blanket rule that the neater the mendian of life the menopause was in duced by any artificial means, the less the chmacteric disturbances. As a result of comparative reviews of a series of involute and pelvic inflammatory cases passing through the Gynecologic Service of the University Hospital in which a surgical or an irradiation climacterium has been induced at has been found that in general the age factor is still of capital importance in estimating the severity of this precipitate issue. However another weighty factor and one always to be estimated most carefully is the nervous stability of the patient A woman of equitable temperament at thirty years of age may be shaken relatively bittle by the abrogation of the ovarian function whereas a nervous apprehensive neu rotic woman in the fourth decade will pass through a ventable chimacteric upheaval if nature is forestalled in this event just as she may when its natural termination arrives. In a nervous woman therefore the extirpation of the tumor with the conservation of ovarian issue should rest upon the immediate mortal ity and the end result. The mortality of trans frontal operations is admittedly high and so far as one can judge from the reports the end results are no better than those which are obtained by the transpasal method

In the \curosurgical Chinc of the Univer sity Hospital where in all primary intrasellar lessons the transphenoidal approach is prac ticed exclusively the mortality once 5 per cent is gradually being lowered. In fact there has been but one fatality in the past a years With increasing experience in what was once an unfamiliar field the apprehension with which we approached this operation is grad ually being di pelled. The specially constructed bivalve speculim gives a perfect illumination of the field and with the aid of a suction apparatus the field is kept constantly unobscured by blood. With these two instruments the difficulties of the operation have been minimized to an extraordinary degree

As to the effect of the op ration in restoring vision, the results have been satisfactory in 70 per cent When one takes into consideration the fact that in many instances degeneration of the optic pathways is already establi hed these results are as good as one might expect Not until operative relief is sought in an earlier period can better results be anticipated

CHARLES H TRAZIER

IRRADIATION TREATMENT OF MI OP ITHIC HÆMORRHAGE

HEN men of equal standing and ability become ardent disputants on any ubject in medicine a final de ci ion frequently favors an intermediary pol-In the earlier lustory of the surgical treatment of myoma uten the mortality at tending all operations was appallingly high when compared with modern evolutionized

operations Three decades ago the electric treatment of these growths largely fostered by French specialists appeared for the moment because of its small risks to challen e the nght of surgeons to pursue an operative pol Experience however gradually elimi nated electricity a a rehable therapeuticagent because the development of hysteromyomec tomy and myomectomy followed such secure lines that both morbidity and mortality sank to an exceedingly low point and thron h the ben ficent effects of these operations the pa tient was assured of health and the fear of a recurrence was practically eliminated. There fore the skilled chirurgical craftsman of recent years has approached these problem with the greatest assurance of a successful is sue Myomectomy in young women yields excellent results, and when this is not feasible the removal of the uterus with conservation of the ovaries reduces climacteric morbidity to a minimum. With the attainment of such an exceedingly favorable trial balance how could the results be bettered? To the positive mind of strict surgical trend there could be but one answer consequently the discussion be fore such men of the ments of any form of irradiation in preference to an operation Lin dled as glowing a response as that of an oxy hydrogen blowpipe to a fading ember

In testing therapeutic remedies of former days decades or a generation might pass be fore the truth of an issue became clanfied Today however the well ordered American clinics with their follow up system and the great medical societie of this country which serve as progressive forums of debate make it possible to arrive at a much more expedi tious judgment These institutions therefore function as great medical cleaning houses in estimating the value of novel operations and therapeutic procedures Thus within a decade one may with great confidence evaluate the



each other

tissue even in the menopausal years must take precedence over irradiation. The fear of ma lignant transformation in myoma uten has been greatly overstressed in the past as is shown by a critical pathological analysis of 816 myomatous tumors which have passed through the Gynecologic Liberators of the Hospital of the University of Pennsylvania In this large number of cases only 25 sar compta were discovered, and of these a could in no sense he considered as malignant trans formations but were sarcomata from the start and were so diagnosed clinically more than 1 300 hysterectomies sarcoma subsequently developed in the cervical stump in

only one case and this sequel was cured by two applications of radium. The infrequency of this type of malignant change and its dan gers is therefore of negligible import as an urgent indication for surgical intervention Since cancer of the fundus can practically always be determined by a study of curetta e debris there is again very little possibility of error if the diagnosi rests upon skilled micro scopic judgment. If well established rule are followed in selecting the type of case to be submitted to surgery and to irradiation the two methods of treatment will work in perfect

harmony and are in no sense anta, onistic to

TORN G CLARK

MASTER SURGEONS OF AMERICA

JOHN WARREN

JOHN WARREN surgeon of the Revolution organizer orator practitioner of Boston until after the War of 1812 is to be credited with founding the Harvard Yedical School where he lectured in surgery for over 30 years. He was one of the chief founders and for 11 years was president of the Massa chusetts Yedical Society. He was one of the first to do an amputation at the shoulder joint not to mention being an advocate of healing by first intention in the days when the presence of laudable pus was thought to be a part of the normal process of repair in all wounds.

Of medium stature well formed and of a military bearing he had a most pre possessing appearance. Peale's portrait shows him with a high forehead sur mounted by busby hair dark eyes an acquiline nose and an expression indic ative of a genual nature which had not been hardened by the stern requirements of surgery in the pre anaesthetic eta.

Dr Warren s father Joseph Warren was a farmer of Roxbury now a part of Boston a descendant of John Warren who came fellow passenger with Governor Winthrop in the Arabella arriving in Salem on June 12 1630. His mother Mary Warren was a daughter of Dr Samuel Stevens also of Roxbury. The father was killed by a fall from an apple tree in 1735 when John was a years old for he was born on July 27 1753. His brother Joseph and he were more or less dependent on their own exertions for their education. John after taking his A B at Harvard in 1771 studied medicine in Boston for 2 years according to the custom of the time with his brother Joseph who was 12 years his senior and then settled in practice in Salem where there was a less crowded field than in the capital. In collegi, Warren though not a deep student became a good classical scholar and developed a love of anatomy helping to form a club for the study of that subject which at that time was given hitle attention.

Though absorbed in an active practice he was said to have taken part in the Ten Party in Boston Harbor December 18 7173. He joined Colonel Pickerings Salem regiment of multisa as a private. Toward the close of the battle of Leungton April 19 1775 he armived at Winter Hill Somerville with his regiment but not in time to be in the engagement. After the battle of Bunker Hill 2 months later he left Salem at 2 o clock, in the morning in an attempt to learn



of any president and at a time when the recently reorganized society needed a strong hand to guide it on its new path

In the winter of 1780 Warren undertool, to give a course of lectures on anatomy at the initiary hospital in Bo ton. His andience was composed of persons attached to the army in a medical capacits, a few medical students and some physicians of Boston not a large gathering but one intensely interested in the practical dissections on the cadaver that had to be carried on with great secrecy on account of popular prejudice. The fertures were so much of a success that he was asked to repeat them. This he did the course being attended by many literary and scientific men including President Willard and members of the Harvard corporation as well as by students from the college. A third course was given in Boston. It was in the winter of 1781 just after the first meeting of the state medical society that Warren performed with success at the military hos pital the operation of amputation at the shoulder joint.

Dr. Warren married in 1777 Miss Abigail Collins daughter of John Collins afterward Governor of Rhode Island. He had met her while she was visiting Colonel Mifflins family in Cambridge. They had a happy married life of 37 years that was bles ed by the birth of seventeen children. The eldest the eminent John Collins born in 1778 did the first operation under other anasthesia and the youngest Fdward born in 1804 was his fathers a biographer. Dr. War ren kept in close touch with bis children the letters he wrote to John Collins when John was a student of medicine at Edimburgh show strong affection a broad outlook and are delabitful readout today.

As recording some of the many activities of this pioneer surgeon and organizer it is to be noted that in 1778 he formed a partnership with Isaac Rand and Lemuel Hayward to make a hospital at Sewall's Point Brookline for the inoculation for smallpox and the treatment of patients attacked by that dread disease. He volunteered as a private in the Khode Island Campaign returning to his hospital duties and to his family at its conclusion The Corporation of Harvard College impressed by Warren's efforts at teaching voted in November 1762 to establish a medical school with three professorships on lines laid down by him Warren was appointed to fill the chair of anatomy and surgery. His first lectures were given in Cambridge during the winter of 1783. He had a well modulated voice an impressive manner seldom used notes and held the attention of his students for periods as long as 2 hours To reach Cambridge from his home in Boston was a long and tining journey. It was not until 1810 that the school was moved to Boston and then the professor of anatomy and surgery had the assistance of his eldest son who at his request had been made adjunct professor in 1809 thus lightening the teaching labors of a busy practitioner for Warren was much in demand and surgery occupied a good deal of his attention. He was cool and deliberate in operating and did not omit detail although impulsive by nature the accuracy of the rumor that his brother Joseph had been killed. While search might be received a thrust from the bayonet of a British sentinel the scat of which he bore through life. He volunteered at once as a private in the Continental Army and was assigned to the care of the wounded. He passed an examination before a medical board and received the appointment of senior surgeon to the hospital established at Cambridge remaining on duty during the sage of Boston With the transfer of the army to New York the general hospital was moved to Long Island and Warren went there. May 11 1756 then followed service in New Jersey and a narrow escape from capture following the battle of Trenton He had a severe illness applied for persussion to return to Boston and was transferred to the General Hospital in the West End in July 1777 with the rank of senior surgeon a position he filled until the close of the war. Then he settled in Boston as a practitioner.

The year 1780 saw a beginning of the Boston Medical Society. This organization with has made up of a group of the young physicians of the town among whom Warten was a leading spurit took an active part in promoting sound medical policies made a fee table and later mapped out a code of ethics. It was in this society that plans originated for a state medical society, and for a medical school connected with Harvard. The club met at the Green Dragon Tavern and many a lively evening was spent in discussing ways and means. In the same year the American Academy of Arts and Science began its long career. To this society

matter pus and a large quantity of short hair. The patient one of the misupon whom an ovariotomy was done made a good recovery and the case excited much interest in the profession.

The Massachusetts Humane Society an organization for assisting those apparently drowned and preventing drowning came into existence in the year 1785. The first meeting of the trustees was held at Warren's house he was the second president and a constant supporter of the society which is in active operation today as is the Society of Arts and Sciences. Dr. Warren's connection with the Massachusetts Medical Society is of considerable interest. He was a member of the Boston Medical Society when that organization was formed in 1780 before he was 27 years old. He seems to have been the energiang agent leading to the formation of the state society. His name appears among the four teen petitioners for a charter in the bill filed in the Massachusetts House of Representatives in May 1781 he was a constant attendant at the meetings of the society was on many important committees served as censor councilor corresponding secretary vice president gave the annual oration in 1805 and filled the presidential chair from 2804 until his death the longest term of office

1782 he delivered the first Fourth of July oration in the Brattle Street church in 1783 this taking the place of the Fifth of March oration commemorative of the Roston Massacre Ht. was a member of the Massachusetts convention for ratify ing the federal constitution in 1788 and he addressed the voters in I anemi Hall in the same year in favor of a memorial to Concress asking that the treats with Great Britain might be put into effect. In 1706 he delivered a eulogy of the Hon Thomas Russell a distinguished merchant of Boston Although Warren took a practical interest in the affairs of the nation a well as of the community in which he lived the rules of his professorship in the medical chool forbade his holding public office had his inclination turned that way or had he medical duties permitted The termination of the War of 1812 had been celebrated on Washington's

Birthday in 1815 by a procession and, in the evening by fireworks and by an illumination of the entire front of the statehouse for the first time. Dr. Warren who had been in failing health with anging went through the streets to see the sights with his youngest son then it years old. On going home he said to him Now let me depart in peace for I have seen the salvation of my country Next month he had a letter from his brother in I orborough 2, miles away that he had dislocated his shoulder. Warren drove to him at once made several attemnts to reduce the dislocation was up nearly all night finally succeeded and returned to Boston to make he usual rounds to his patients. Not long after he had an attack of pneumonia and died April 4 1815 at the age of 61 leaving his

widow and nine children. An autops, showed extensive disease of the arch of the aorta and pleuritic adhesions of long standing. Mr. Warren survived him until 1832 when she died at the age of sevents three WATTER L. RUPPACE

he held himself in control during the trying ordeals of operations on patients writhing with pain when there was no anaesthesia-difficult undertakings for a man with Warren's sensitive nature John Collins Warren said that his fath r was a better surgeon than he He praised the cataract operation his father did Trained by an extensive practical experience in the army John Warren could afford to forego the study in European capital that some of his contemporaries enjoyed and that he gave his son At the time when the medical school had been started auspiciously Harvard conferred on him the bonorary M D (1786) the only medical degree he held

It was the custom in the period following the Pevolution for practitioners of medicine to visit their patients on horseback resorting to the use of a chaise only for long journeys Dr Narren observed the custom but rode and drove a bit recklessly if we may believe his contemporaries. We may picture him dressed in the co tume of the time according to the biographical notes of his medical son a colored coat metal buttons usually vellow colored and figured naistroat short breeches buttoming at the knees long boots with white tops and when riding on horseback a pair of leather breeches a shirt ruffled at the breast and about the wrists a white cravat filled in with what was called a pudding and a cocked hat After the year 1785 he lived in a large house on the north side of School street with stables greenhouse and outbuildings reaching as lar as Washington street. In an office in a separate building students assisted with dressings and in the preparation and dispensing of medicines. The well fur nished and ample mansion was a home and a place of entertainment for the important men and women of the time. His garden and Iruit trees were a great interest and later when he owned a small larm in Jamaica Plain a near by sub urh he was president of the Massachusetts Ameultural Society

Dr Warren's service as a practitioner brought him into contact with the extensive enidemics which prevailed in those days. He took a prominent part it the manag ment of the yellow fever which vi ited Boston in 1,08 and a rote a report on it. In 1808 he was one of a committee of the Massachusetts Medical Society to present a report of so pages on the smallney that had broken out at ave ad a

າກລາ

-5 1D

society and to the columns of the Aew England Journa he left few medical writings

Space permits only a bare mention here of Warren's extramedical activities He was chosen Grand Master of the Massachusetts Lodge of Free Masons in



THE SURGEON'S LIBRARY

OLD MASTERPIECES IN SURGERY—LITHOTOMY AND THE 1 ITHOTOMISTS

BY ALFRED I BROWN MD FACS OWARA NEBRAS A

THE story of lithotomy is pethaps one of the practicing as independents. We now find many most interesting of any surgical procedure

the description of the second state of the second s

h who practiced hthotomy

thought. We walk with improciate

much independent to but as we go on the inde pendent thought creeps in and physicians no longer are content to take the word of their forbears as law but branch out and think and act for themselves New facts are found in medicine and new modes of practice spring into being As we go on we ind our sel es among the crafts and gildsmen For the old opin ions are so strong that the well educated physician be ang of the elect and of the philosophers will not stoop to work w th his hands and so leaves that to others some of whom wo k with him but many cut the leash and go by themselves



PHILIPPES COLLOI

the reasons why the recovered and that h s was the most difficult case his surgeon ever had Finally we leave Pepys and his friends carryi g with us a sheaf of those beautiful cards which the Engli h and French dand es h d mad with a picture of the stone and the date of their deliv erance w th any other minor facts that they chose to mention In France we fol low the path with those who are doing the oper tion Specialists all in their line not of the regular medical profession but evolving n w method and constantly bettering their work We walk with the Coll ts fathers and sons practicing 1 thotomy for a hundred years recom



THE SURGEON'S LIBRARY

OLD MASTERPIECES IN SURGERY-LITHOTOMY AND THE LITHOTOMISTS

BY ALFRED J BROWN MD TACS OMARA NEBRASKA

most interesting of any surgical procedure

THE story of lithotomy is perhaps one of the practicing as independents. We now find many

cares to can t b

thought We walk with mil pour & who n cticed lithotomy

and act for them e es New facts are found in medicine and new modes of practice spring into being As we go on we find our selves among the crafts and gildsmen For the old opin ions are so strong that the well educated physician be ing of the elect and of the philosophers will not stoop to work with his hands and so leaves that to others some of whom work wi h him but many cut the leash and go by themselves



PHILIPPES COLLOT 886

The reasons way e the sickest man that ever recovered and that his was the most diff cult case h surgeon e er had Tinally ne leave Pepys and his frends carrying with us a sheaf of those beautiful cards which the English and French dand es had made with a picture of the stone and the date of their d liv erance with any other minor facts that they chose to mention In France w fol low the path with those who are doing th opera t on Speciali to all in their line not of the regular medical profession but evolving new methods and constantly better og their work We walk with the Collots fathers and sons practicing lithotomy for a hundred years recom

mended by Ambroise Paré in his time and friends of the greatest surgeons We see Frere Jacques and spend a time with him in his ber mitage and watch him do his new lateral litbotomy Finally the path broadens We meet and walk with the regular profession for the proper place of litbotomy has been recognized and it becomes an operation no longer despised and one to be turned over to a crafts man but one to be practiced by the educated surgeon Lithotomy being a neces sity has lived but not be

say has lived but not be cause of the effort of tho e who practiced it For many years it was s craft practiced by semi ignorant men and charlstans looked looked down upon by the clusted members of the profession and turned over by them to these men who formed what might be termed a guid though never termed a guid though never

organized beyond the general med cal gilds. Their methods were secret and handed down by word of mouth and practical precept from generation to generation. As a result the litbotomists flourished through the centuries and preserved their methods and their skill and rather in spite of their desires and



FRATER JACOBUS DE BEAULIEU

poorly educated men who gained their knowledge as they could and practiced with all the charms and amulets and incantations they could muster to fool an unintelligent and trusting public Another influence affecting lithotomy and also obstetrics was the fact that the knowledge concerning generation was practically nil Consequently the geni talia were taboo (even more so than during the mid Victorian era when polite society spoke of a hull as a cow) so save only the He brew cleric any one who demeaned bimself by oper ating on the genitalia was beneath contempt Hence charlatanism and secrecy of method flourished In ob stetrics midwives performed the delivery occasionally under supervision but in lithotomy the untrained sur

labor This left all surgery

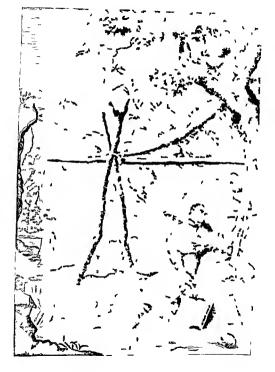
to be done by ignorant and

geon flourished with no check or hindrance until

ibs soft century
With all the drawbacks the technique of the
operation improved gradually during the period of
development and the lithotomic vidently attained
great skull and destructly. As to their diagnostic
ability one can have doubts for the number of
ability one can have doubts for the number of
today. One wonders whether other causes of unnay
betterdons onch as structure and enlarged prostar
were not operated upon under the name of stone
and account, for some at least of the incurable

though color printing as done at present is un deniably artistic still when one looks at a beautiful Book of Hours d ne on vellum with its pa nted miniatures the col rs of which are as fresh today as

I at usuming new ones so there must have been some method in use for breaking the stone. In women stones were removed through an incusion in women stones were removed through an incusion in the anteriors against all continued through the neck than the properties in the preferred not taught likhottomy. The state of t



REVIEWS OF NEW BOOKS IN SURGERY

,

TERE is a book which it behooves every medical man to read be he undergraduate or hicensed physician gynecologist or country practitioner—a history of Medicine. Besi ged as we O'NE wonders after reading this life of Lord Lister if we as teachers of clinical medicine or surgery are even in the slightest way im

The entire theme of Lord Lister's professional

hie ~ acce fund denc

the war our is but our insteay too common a fault. To have both is indeed fortunate but to have the attitude of mind alone would carry one far in scientific medicine

Perhaps we should not be so concerned over whether this or that school of medicine is graduating highly scientifically trained men or whether we should be down.

reginnings to the accomplishments of today. To

than feel more keenly the responsibility of his patients welfare. Those characteristics vere Lister. I suppose the older generation of medical men are

LOYAL DAVIS

Dre

mai no tess than 211 autopsies on amich e

Manicon Herr Ottle By M C Seelg MD

SURGERY GYNECOLOGY AND OBSTETRICS

tioners of this work The method of breaking a stone in the bladder was evidently known to the

888

various surgeons differed all ghily but are basically the same. They may be found illustrated in most of their works.

The stateenth century saw the rise of the famous

One of the most picturesque figures 1 the history

chisel and hammer

Benedetti described median perineal listotomy
through the neck of the bladder Dalla Croce
denies the operation of Celsus and adds the

lontuckmen pripor



CLINICAL CONGRESS OF AMERICAN COLLEGE OF SURGEONS

RUDOLPH MATAS New Orleans President Elect CHARLES II MAYO Rochester President ALBERT J OCHSNER Chicago Treasurer

TRANKLIN H MARTIN Chicago Director-General

1 HILADELPHIA COMMITTEE ON ARRANGEMENTS

Executive Committee

CHARLES F NASSAU Chairman BROOKE M ANSPACE LOUIS II CLERE TORN D LILIOTT

WARREN R DAVIS Secretary FLOYD E KEENE I L SWEET B A THOMAS FIELDING O LEWIS DEFOREST P WILLARD

GEORGE P MULLER UNITAR T SHOPMAKER

Hospital and Clinical Committee

I C ALEXANDER A I C ASHIRURST WAYNE W BABCOCK I II BALDWIN MILITAN BATES Moses Beneen F B BLOCK HEARY P BROWN IR (M DORRANCE I. L. Pittison

M FLIZEY L D ENGLERTH T M GRISCOM ARTHUR HARTLEY ROBERT II IVY JOHN IL JOPSON A P AZEGAN LIOND E KEENE

D ELLIOTT

E J LLOPP W. ESTELL LEP M ESTELL LE.
CATHARINE BIACTARLANE J T SCHPLL
SAMUEL MCCLARY III WILLIAM B SWARTLEY
PAUL M MFCRAY
GEORGE P MULLER
STEPHPN E TRACY HUBLEY R OWER W E PARKE D B PREIFFER

DESIDERIO ROMAN I L VANTINE RAISTON WALLS A D Wmrrsq

I STEWART RODMAN

PRELIMINARY CLINICAL PROGRAM FOR PHILADELPHIA MEETING

IN the following pages will be found a preliminary program of the clinics and demon strations to be given in the hospitals and medical schools of Philadelphia during the fifteenth annual session of the Chinical Congress of the American College of Surgeons in Ibila delphia October 26 to 30 The program as publi hed is merely an outline of the program which the Committee on Arrangements is preparing Under the supervi ion of the Committee the program will be revi ed and greatly amplified during the months preceding the meeting so that the final program will completely represent I hiladelphia s clinical activities in all depart ments of urgery A series of clinical demonstra tions on dry clinics at the larger hospitals in which surgern internists roentgenologists pa thologists and other peciali ts will participate to discuss some of the more important surgical sub jects will form an important feature of the program

Specialists in ophthalmology otology rhinology and latyngology will find much of interest in a

lu i program for each of the four days of the session for those who are particularly interested in these departments of surgery
(eneral headquarters of the Congress will be

established at the Bellevue Stratford Hotel Broad and Walnut Streets where the entire first

sadille Pie

and retention of the deformity and the various forms of treatment advocated. The lack of ap-

CEORGE DE TARNO KEY

A CAREFUL survey of the general results of the treatment of fractures would indicate that but little progress has been made in the last

tion is made it is as a rule so complex and confusing

and has fostered a certain inefficiency which the

uniformly excellent

be applicable to a cital conductive to an improvement in the gin ral treat ment of fractures. J. A. I otreat

In regard to the Life of General W. C. Gorgas which was reviewed in the March issue 1025 page

FRACTU DISOCT BY The DW by AB M D FACS of William A Coch MB the FRCS (Lober) Pad d light of Lib of JB Lippens C 93

GENFRAL SURGERY, GYNECOLOGY OBSTETRICS, ORTHOPEDICS, UROLOGY

c-,

i

UNIVERSITY HOSPITAL

JOHN G CLARE C C NOMES and F II KEENE-9
Gyncol SY
C II. TRAFFE F GEANT and TEMPLE FAY-9 NOTO
SURGEY
B C HIMST I B PIPER J C HIRST II J A JAPEE G

B C. HIRST F. B. PIPER J. C. HIRST H. J. A. JAPPE G. V. JANNIER and W. BENNON HARRE—9. Obsteines and gynecology.

Gronge J. Muller a. d. J. S. RAVDIN—9. General survery.

A BRICE GILL-9 Orthopedics
CHEVALIER JACKSON and GARRIEL TICKER-1 Bronchos
1 DV

Hednesday

John G Clark C C Norms and F E Kerne-9

Cynec logs

E L ELMASON and DECRY HINTON-9

Ge eral surgery

A Rampall S W MOORMEAN P S I KLOUZE and

MAURICE MUSCHAT-2 Urology

The id y

John G Clare C C Norms and F E Lerne-9

Gyncology
C II FRAZIER F GRANT and TEMPLE FAY-O Neurosurg ry
C II see E P Proper I C Hiper II I S JAPPE C

SURE TY

B C II EST E F PIPER J C HIRST II J F JAFFE C
V JANVIER and W B HARER-9 Obstetre a d
gynecology

r gery Bonch w

Fridsy

JOHN G CHARK C C Norris and F E Kz ve-9

Gyn cology
C II Franks F Grant d Teache l'ay-9 Neuro-

B C lines T B Piper J C lines II J K Jarre G \[Janvier and W B Harer-9 Gynecology and obst trice \]

E L ELIASON and DRURY HIVTOV-9 Gener I surg ry A BRUCE GILL-9 Orthoped

METHODIST FFISCOPAL HOSPITAL

JAMES H BALDWIN-9 Gene alsurgery

Bedar d y

Nilliam Nicholson—S Gyner logy
L. J. Haanso D— General's recty

M. F. Perrovat—4 Demonstr is n of \(^1 ray\) pparatus
rad o knife

Th sd y

D B Przirrzn-g Gen ral surgery

R O Norats- Cynecology

Ful y

J T Ruck-to Orthoped ca.

LEO HERMAN-2 Genito-urin ty clinic

JEFFERSON HOSPITAL Tue d y

J TORRANCE RUCH—0 30 Orthop dies CHARLES F NASSAU—11 (en al surgery TROMAS C STELLAGEV—11 GENTO-UTITATY SURGER, DOMN II GENBON—2 GENERAL SURGERY

Ti d zday

Thu sday

H R LOOX-O G to-unpary sure ry J M FISHER-11 Gynecol gy

ar eas sot the tunk

F id v
EDWARD J KROPP— 1 General's rivery

PENNSYLVANIA HOSPITAL

T day

CHARLES F MITCHELL W. ESTELL LEE HENRY P BROWN and LEON HERMAN— Ceneral surgery

Wed day

JOHN H GIBBON ARTHUR E BILLINGS EDWARD J KLOPP JOHN B FLICK and LEON HERMAN-11 Gener 1 surgery

Thu sday

JAME CAMERON—O Oral surgery
J. R. PAUE—TO Surgical path logy
CHARLES F. MITCHEEL W. ESTELL LEE HEARY P. BROWN
a. d. LEO I HERMAN—1; Gen rais rety

MT SINAI HOSHITAL

Tu dy
CHARLES F \ASSAU-0 Gen ral a rgery
G Rose baun- a Koentge logo

Il edne day

M BEHEFND-9 Ge eral's reery M Cooperman-2 Orthoped cs C Treere-4 Bronelose py

The id y

C Hussr-o Gynecology
ROSERBAUN- 1 Roen g ology
TUCKER-4 B neboscopy

C MAZZZ-9 Gynecology C HIRSCH-11 30 Urology

3m 19

A number of fine large hotels situated within easy walking distance of the Bellevie Stratford

EVENING MEETINGS

the American Hospital Association the American Catholic Protestant and Methodist Hospital associations the American Society of Clinical Protection of the American Society of the A

1 1 1 1

A hospital information and service bureau will be maintained throughout the Congress to give assistance to any hospitals having problems which they wish solved

LIMITED ATTENDANCE

Attendance at the Philadelphia session will be limited to a number that can be comfortably ac commodated at the clinics the limit of attendance being based upon the result of a survey of the

discussions general surgery etc. Rose Garden 8 Scientific papers section on surgery of the eye ear nose and throat

Thursday—Ballroom 8 Scientific papers and discussion gen raisungery etc. Rose Garden 8 Scientific papers section on surgery of the eve ear nose and throat

Friday—Ballroom 8 Thirteenth convocation of the American College of Surgeons Fellowship Address

HOSPITAL CONFERENCE

facilities personnel procedures end results and will be of particular interest throughout to hospital trustees executives and personnel general

services and departments in hospitals. The sub

ance has been reached through advanced registra tion no further applications can be accepted

urgeons among the several clinics and insures against overcrowding as the number of tickets issued for any clinic is limited to the capacity of the room in which that clinic is given

REGISTRATION FEE

A registration fee of \$500 is required of each surgeon attending the annual clinical meetin. high high comeet his surgeon

of for the s to be ex upon his meeting must be

presented to secure clinic tickets and aumission to the evening meeting

ORAL AND PLASTIC SURGEONS

The American Association of Oral and Plastic on meets on Monday and Tuesday at the

CHILDREN'S HOSPITAL

CHILDREN'S HOSTING

J H JORSON—9 D sig sig in surgical disc sets of the abd me
J C GITTIVES—9 S me medic I aspects of surg calc sets
C W Bugs a d T E Leavitr—9 Ne rose gical problems in child en.
C Norma-2 Vagnatis; infants and young child en.

U edne dav

W ESTRILLER and J R WELLS-9 Pr blems in the cice a rigery Free timent of buins
R S BROWER-9 Xr y in thoracic and gastro-in the literature

Th sday

Howard C Carpenter—9 II alth e aminat on in chill n
Lunix P Bacon—9 Dem istrat n of nutrition 1 work in hildren

Susan C Francis R N -9 Problems in many ment of a rucal w ds

methods of t catm nt

Friday

John Speese and V. Eddar Christine—9 P stoperative
map g ment of u gical cises
Haway P B own and Irm t G Unitinson—9 M a
agem not the urgical that t departm t

COOPER HOSTITAL (Camden)

_ .

Tu idey
THOMAS B LEE ALBERT B DAYIS and GORDON WLST-9
Gynecology

H dne day

The day
Tromas B Lee Alb at B Davis and Gordon West-o

Gy ec I gy

F id y

Paul M Megray ni soc les— o Ge I su gery
B I Buray— 3 O th ped cs

ST LUKES HOSPITAL

DE DERIO 1 MAN-9 Ge eral surgery

O I BART WHEE - Dem muration of blood transfu on lied day

I MALTER POST Demonstrate n in rocking in I gy
The sday

A B WEBSTIR-9 Gen ral surgery

De merio Rou n-o Operati ns upon thyrod and d m trati n f group at dy I thyrod dis ase

Frid y

A B Webster—9 Ge etal surg ry

J Walter Post—11 D monstrate n in roe tgen I gy

WOMAN'S HOSPITAL

Tutiday

SARAH H LOCKREY and EMILY WHITTEN AUGE—9

Gyaccology
LIDA NEWART COCILL and ELIZABETH HUGRES—2

Obst t cs Junia Hardin Gas-oxygen and ethylene anasthes a

Wed esday

MARIE K FORMAD and ALBERTA PELTZ—3 Gynecology ELLA WILLIAMS GRIM and ALBERTA PELTZ—3 Obst trice JULIA HARDIN Gas-oxygen and ethyl ne anarshes

Th tiday

CATHARINE MACFARLANE and FAITH S FETTERMAN-O
Gynecology
MARY LEWIS and DELLA MILDAZIAS—1 Obstetrics

JULIA HARDIN GAR-OXYGER & d ethylene anaesthes a

F day

KATE W BALDWIN-O CENERAL SURGERY

ELIZAMENT F C CLARK- Gynecology
ANN TONERS GEBON And JESSE W PAVOR-2 Obstetuce.

Catter Whitten Auge-3 Gene al urgery Julia Hardin Gas-oxygen and thylene anasthesia

ORTHOPEDIC HOSPITAL

Tuesday

Astley P C As murst John Crossan and B I' Burny

— Orthopodic demonstration

Thersday
Astrey P C Assurest John Crossen and B F Burny
O thoped c operations,

A Bruce Care C R Bowen and James E Wyant O thop decline

CHESTNUT HILL HOSPITAL

Turday

Andrew Goderey a d William Sheehan— o Geografi

ALEXANDER RANDALL- Urol gy

J Murkay Exeren-1 Fracture climic

J T McCloskey—10 G ral's rgery

WOMAN'S COLLEGE HOSPITAL

Tuesday

Lide Stewart Counting Prenat I clin c

J S RODMAN a d staff-9 General's gry

The sal y

CATHARINE MACFARLANE - 2 Gynec 1 gy

friday

J S Po man and staff-g Generals gery

10 m

PHILADELPHIA GENERAL HOSPITAL

Tuesday I BANK C HAMMOND—10 Gynecology William H Mackinney—2 Gen to-unnary surgery

Hed sd v

cancer

804

The set w J B CARNETT-O Cancer clinic EDWARD A SCHUMANN-2 Gynec lory

T T THOMAS-9 Gener I su gery
EDWARD B KRUMBHAAR d path 1 gists-4 S rg al pathological conference

EPISCOPAL ROSPITAL

Tuesday

RALPH S BROMES-9 Y ray demo strat n Louis II MUTSCHER-11 Operate e clin c Wedne d v

ASTLEY P C ASHIURST-9 Operat ve clinic.

Th sday E O ALEXANDER—9 Operat ve clime
H C. DEAVER—11 Operatu climic.

Fr 4 v E T Crossan—o Dem natrit on in a rg callp thology L II MUTSCHIER—II Operati e clin c

PRESBYTERIAN HOSPITAL n n n

B A THOMAS and staff Ge to-unn rys rgery
A Bauce Gills dT E Orr Orth pede rg ry
Frank Crozer Knowles and Henry G Munson

D matology

WOMEN'S HOMEOF VILLE HOSPITAL

T esd v IOHN A BROOKE-2 Orthoped ca

Hed sd y

ARTHUR HARTLEY-2 General surg ry

FRANCOIS L HUCHES- o Gynecol gy

WISERICORDIA HOSPITAL

Tuesday BASIL BELTRAN & d staff-9 Ge eral surgery
JAMES A KELLY & d staff-9 Ge eral surgery

W ducid v GEORGE P MULLER and THOMAS RYAN-O General

PETER M KEATING-9 Clinical d m stration, I F Y IONES- Ge mls rg ry

Th id y

BASIL B ETRAN & distaff-9 Gen r laurgery James A RELLY & distaff-9 Ge e laurg ry Fdy

GEORGE P MULLES and THOMAS RYAN-O G n ral surgery
Peter M Keating-o Closes demo t t p. I F X JONES-2 Gc c al surgery

POLYCLINIC HOSPITAL

Tuesd v

DEFO STP WILLARD-10.1 Orthoped C F Pramer-2 Radi log ce niere e B A Thomas-2 Urology

W dne d v R II IVY d LAWRENCE CURTIS- Or I surg ry W G ELMER-113 O thopeds a recry

Th sd y COLLIER F MARTIN- Proctol my J I SCHAMBERG-2 Arsph min limic

Fidy R II Ivy-9 Ma illo-f calls rgery B A TROMAS-2 Urol gy E A CASE-2 S cg: 1 path ! gy

HAHNEMANN HOSPITAL

T esd v L T ASRCEART—9 Cenito-urmany cl c
D B JAMES and staff—9 Gynec 1 gy
J E JAMES and LEON CLEMMER— Obstetr 1 pe

su ns

P W SMITH-2 Br nch cop; I C BENSON JR.-3 R di m clin c

.

II'd sd y

The id y

D B JAMES and staff—o Gyn logy
J D FLHOTT a dJ A B GOKE—o General of the D B Watte d N F PANN— Pren t 1 hmc
J W FRANK—j R e tgc 1 g chn c

F day G A VAN LENNEP and H P LEOPOLD-9 Ge eral

D B T wes nd st ff-9 Gynec 1 gy

LENSINGTON HOSPIFIL FOR WOMEN

Tue day

\text{\text{ILLEAM F. PARKE-11 Prenstale}} c

If C DEAVER-12 30 Gynecology

friday

MILLIAN I PARRE-11 Pr stalchine

NORTHEASTERN ROS

H / Illeshman—o Proct ! gy T Turver Thomas—o General surgery John B Lownes a d J A Broadfield—3 Urology

The sday
The Turner Tromas—a General rule ry

CHILDREN'S HOMEOPATHIC HOSPITAL

If d enday long Decorat— O thoped a

The iday

A KARNDORFER IN -2 Gynecology

Fiday

II P LEGISCOLD—10 General surg ry

ST CHRISTOPHERS MOSEITAL

L G ALEXANDER—1 Surgery in Buildren

STETSON HOSPITAL

I sd y

John A Books and William T Fill -1 Gen ral sur

g ry Bedn d y

S E TRACY and Associates—9 Cytier 1 gy
Th of y

Brooke M Taspach and Associates—g (y ecology
F day

S E TRACY d issociates-9 Gynecol gy

NORTHWISTERN GENERAL HOSPITAL

Tuesday

J O Nanous Obstetucs

Heded j I Thompson Schell, G etal surgery

The r day

ARTHUR D ACREE Onto ped 4.
Fulsy

ROBERT BOYER Genito unnary

AMERICAN ONCOLOGIC HOSI ITAL

T day

W S Newcomer-to Cases of angiona tre t d ni nder treatment is lected from a group of oo Samuel McClary 3rd C ses of c cer of the lp and m with

SURGERY OF THE ELL LAR, NOSE AND THROAT

CLINICAL DEMONSTRATIONS

In the Ballroom Bellevae Stratif d

J Passon - T day-q 1 M G E Debc

Joseph C Wells P

B of y-0 A If
C IEVALUER J CROW To indephas Ch fix talk
Dot class Qt CK New Yor K Rad um and X ray so the
tre tim t of m l gn nt d neas I the p ra sai
in ses
J NY E M Ch NTT New York FEELDS G O LEMES

Philad lphia T tall syngettomy

The self was A M

11 1 Mostice Bost in Ot larytigology Edward B Dencil N w York Otol gy C M Sautter N w York Otol typigol gy

CARL WILLIAMS-2 Ophthalmology

CHESTAUT HILL HOSPITAL

Be Jamin Parish and John Davies-2 Ot Issyngology

The solve

WILLS EYE HOSPITAL

Tu day

Burton Chance Γκακ C Parker Leigi ton Γ

APPLEIAN and Benjamin F Bare Jr — Ophthal
in coperations

Hed day

Hilliam Zevinayer Paul J Povins J Militor Griscon ad Thomas A O Briev-2 Ophthalmic

operat 3 T? sdsy

Be for Charce Frank C Praker Irightow 1
Appreximan a d Benjaury Frank Dack Jr -2 Ophthal

m coperat as

F d v

Whileman Z nymayer Paul J Pontius J Milton Gets

cone and Thomas A O Beren— Ophth Imc

pe ti s MT SINAI HOSPITAL

JIT SINAI HOSPITAL

I FISHER-1 Old Typgology C R Lefeler-4 Ophthalmology

S J Girrersov-2 Ophthalmology

A W WATSON-2 LANTIEGO BY

LANKENAU HOSPITAL

Tu sday STANLEY P REIMAN-O Demo str ta na m n w l hora

tory
A G MILLER and ROBERT SHOEMARER-II Dem Instra tion in reentgenology I' L HARTHAN-I Demonstration of follow p system

W dnesday

STANLEY P REMAN-o D monstrati n m new labora T L HARTMAN- 1 Demo strateo I f llow up tyst m A G MILLER and ROBERT SHOEMAKER-IT D m stra to n in roentgenology

TORN B DEAVER- 2 General surgery

T L. HARIMAN-11 Demo trats n of follow p syst m A G MILLER and ROBERT SHOEMAKER-1 Dem sira tion in contgenology
John B Deaver—12 Gen ral surgery
William H Mackinner—3 1 Gy toscopy

Fiday

STANLEY P REIMAN-Q Demonstrate n in new labora tory
A. G Miller and Robert Shoemaker-1: D monstra tion in roe trenology T L. HARTHAN-II Demo strats n of follow up system

MEDICO CHIRURGICAL HOSPITAL

T day B CARNETT-O Ceneral surgery

GEO GE M BOYD-Gynec logy lied day

CEORGE W OUTERBRIDGE-O Cystosc py WILLIAM R NICHOLSON-O Gyn col gy

J B CARNETT-9 Gen I surg by GEORGE M BOYD-1 Gynecology

ST AGNES HOSPITAL

Tuesday E C MURPHY and J F X JOVES-9 Gener Is to ry

IOHN A McGLINN-O Gynec logy Hednesd y G M DORRANCE and J W BRANSFIELD-9 General

surgery JOHN M FISHER-9 Gynec logy WILBUR B HAINES-2 C n to-urmary su g ty I C Higgs and staff-2 Gynecology and batetines

FRANKFORD HOSPITAL

Wednesd 7 W E PARKE E A SCHUMANN G C HANNA & d T E KELLER-Q 30 Gynecology

Th day CHARLES I NASSAU and LOUIS D EN LIRIN-93 Ge eral surg ry

SAMARITAN HOSPITAL

Tue day

B d r day - 20

tet s.

The day A C APPLECATION Oh tetrors

Freday W WAYNE BARCOCK-9 General's rg ry

HOWARD HOSPITAL

Tu dy A C Wood--- G rai sure ry E L EMAION-10 C als Ig Iy

B d sd v B C Hrst-o Cyn clgy

Thur dov

A C Wood-9 G E L ELIASON- 3 als rg ry Gen rals g ry S W MOORHEAD-4 Gen to TID TY TE V

Frid y B C Ili sr-o (voe l'av

ST JOSEPH'S HOSPITAL

T sd y JOSEP & M S ELLISSY-Q Orth ped JOHN F X JOYES- 03 Ge c 1 u g y

Hed dy MELSIN M FR. NELIN-9 G I SUIT IS F HURST MAIER--II Gyn 1 gy

TAMES A RELL -O G ral's gry Fdv

CHURLES F NASS U-9 Ge t.1 Gynec 1 ga P REODKE BLAND-

JEWISH HOSPITAL Tuesday

W H TELLER-9 Ge ls TE TY Hed sd y

F B BLOCK-9 G e l surg r) Th day

M BERREND-0 Ge I surg ry Frid v

L BRINKMAN-Q Ge ral su g ry



PPISCOPAL HOSPITAL

T esd y

N R Watson—2 Otolaryng 1 gv
Harold G Goldberg 2 Ophth Imolygy

N G I EWELL-2 Ophthalm 1 gy W R Warson-2 Ot larying logy

Ti iday

Frederick Krauss-2 Ophthalmol gy

Charles C. Biederi-2 Otolaryngol gy

F id y

CHARLES C BIED ET—1 Otolarybgology

HAROLD G GOLDBERG—2 Ophthalmology

CHILDREN S HOSPITAL

If d day

H MAXWELL LA GDON d A R RENA GER-2 Oj h
th lmol gy

The rid y

JAMES A BARRIET a d staff-2 Ot larying 1 go

COOLER HOSPIT L (Camd n)

T cody

L B Hirst F R Hirst and Altred Elwell-2 jo
Ololaryngolony

The relay

I B Hrast F R Hiest and Alvaed Elwell- 30

Ottol ryng logy

WOMAN'S HOSPITAL

Tiesday

LAURA D. HUNT and MARY HITPER-1 On 1 symgol gy

MARGARET A WARLOW-1 30 Otel tyngol gy MARY BUCHANAN-3 Ophth im logy

Th rid y

MARGARPT F BUTLER & d LOUIS VAN LOON- Ot 1 tyn
gology

MISERICORDIA HOSHT M

JOHN E LOFTU--- Ot larying logy
Bod sd y

C T McCarthy-2 Ot laryngol gy Harold Goldberg-3 Ophth to logv Thi sd y

JOIN D LOFTLS-2 Of laryng I gy JOHN A COLGAN-3 Ophthalm I gy Friday

C T McCarner-2 Of laryngology

WOMEN'S HOMEOPATHIC HOSPITAL.

JOSEPH F V CLAY-Thursd y Ot 1 tymgol gy

IEFFERSON HOSLITAL

The rid y

Treature O Lewis — Otolaryngol gy

Frid y

Howard P Hansell. d William M Sweet— Oph
thain I gy
S M (CUEN Suith and J Clarence Leeler—
Otol gy

HOWARD HOSPITAL

G B Wood-2 Laryngology

W C Poses—2 Ophthalm l gy

G B Wood-2 Laryng logy

W C I Dany-2 Oubth im 1 sv

POLYCLINIC HOSPITAL

T and y

T B HOLLOWAY-: Ophth lm ! sy

Walter Roberts—2 Ot 1 Tyng 1 gy E B Gleason—3 Ot latyngology I C Petve—3 Ophtbalm 1 gy

Canage B Wood-3 Larying logy Raigh Butler-3 Larying logy

ST AGNES HOSPITAL

T dy

BE J MIN D PARISH—2 Otol Tympology

II d d y

W REER B DAVIS- Ot larying logy

HAMNEMANN HOSTITAL

Hed eiday

G F PALEN-2 Ot logy

If S Weaver and C B Hours- L ryng 1 gy

Fully
I D Names—2 Oohth lm l gy

O AVERE-S Ofurth mr (8)

PINLADELI HIA GENERAL HOSPITAL Damo N Hu i -Find y Ot 1 y gology

SAMARITAN HOSPITAL

HALLERSTLY HOSPITAL T esday

T on s B Holloway-2 Ophthalm ! gy G Ferrenore J A Babbir D Hisik and Lewis Fish r-3 Ot I yng logy

11 d day

G PETTEROLF J A BABBITT D HUSIK a dl PISHER-3 Otolaryngol gy

Th dr THOMAS B HOLLOW Y-2 Ophthalmol ev

Fid v

THOMAS B HOLLOWAY— Ophth Im I gy
GEORGE PETTEROLY J A BARRITT DAVID FILSIA 2 d
I FWIS FI HER—3 Ot larying I gy

WOMAN'S COLLEGE HOSPITAL Tuesday

MARGARET I' BUTLER-4 Ot 1 rengol gy

F id y MARY BUCHANAN-3 Ophthalmol gy

METHODIST EPISCOPAL HOSPITAL

I sa v WALTER ROBERTS- Otolaryng logy PHILIP MOORF-4 Ophth Im I gy

^

FRANKFORD HOSPITAL

FRINK FUBER d W I WATSON-Tesly on Ot 1 ryngol gy

CHILDREN'S HOMEOPATHIC HOSPITAL FRED W Sarm-Tuesly a Lay glav

STETSON HOSPITAL C REF I FELT and A SOCIATES-Well esday 1 Oto-I ty gol gy

MEDICO-CHIRURGICAL HOSPITAL

Tuesday Grouper M COATES-2 Otolaryngology

II ednesdav Ross H SERLERN-2 Laryngology Th ed v

CEARGE M COATES-2 Otol ryng 1 gy Frid y

Ross H Skillery-2 Larying logy

ST TOSEPH'S HOSPITAL T esd v

George M Marshall-2 Ot 1 type logy Part I Poytus-2 Ophthalmology II dn d v

CHARLES J JONES-2 Ophth Imol gy WILLIAM L OURCESALL-2 Otolaryng logs Thi raday

ARTHUR WRIGLEY-2 Otolaryngology THOMAS A O BRIEN-2 Ophthalmol gy

Friday CORNERS T McCARTY-2 Otolaryprology

PRESBYTERIAN HOSPITAL H MAXWELL LANGDON and staff Ophthalmol gy N P STAUFFER and St ff Otolaryngology

TRANK FORD HOSPITAL

FRANK EMBERY and W J WATSON-Tues lay 9 30 Ot larying logy NORTHEASTERN HOSPITAL

il d esday GEORGE | SHAFFER- Laryngology G ANVILER A LAWRENCE-4 Ophthalm 1 gy

IEWISH HOSPITAL

S McC Surra and A S Laurman-Thursd y 3 Otol OEY

PHILADEIPHIA HOTELS AND THEIR RATES

M mun	RII
Room Singl	th B h
\$4 00	\$8 00
500	8 00
3 00	6 00
3 5	5 00
4 00	6 00
4 00 2 50	5 00
4 00	5 ∞
3 00	5 00
3 ∞	6 ∞
3 50 6 00	5 00
600	00 01
3 50	5 00
5 00	7 00

7 00 4 00 6 00 1 00 5 00

STATE AND PROVINCIAL SECTIONAL MEETINGS

ELUVEN Sectional Meetings of the American College of Surgeons have been held since the first of January as follows

Oregon British Columbia Wa l'agton
Priland Or January 26-77
Cath ru Nevada Ariz a
San Dego Cal February 2-3
Texas New Meuco Old Mex co
El Paso Texas F bruary 6-7

One of the pleasing features of these meetings was the fact that representatives of the American

Charlest n S C March 16-17
West V equals Virg i Maryland Dainet of Col mbia
Charleston W v March 0-21
Pennsyl ania New Jersey D las re
New Logland States Aww H v n Conn March 16-37

fol Tr Ar

Minnesota Edward Jackson Denver Colorado

Georgia j in Sumpson Morgantown West Virginia John Lichty Chifton Springs New York.

The above group of Sectumal Meetings was easily the best the College of Surgeons has conducted I verywhere there was a large attend ance of Fellows of the College and those in terested in by pitals. The public meetings far out reached our fondest expectations. In the city of Portland there was gathered one of the largest audiences which had ever assembled in that city.

The motion picture film entitled. How the Fires of the Body Are Fed released by the Pi torial Clubs Inc. was a decided sensation for

both the public and the profe sion Both doctors and laymen were enthwisasti about these sectional meetings. The local committees are to be congratulated upon the splendid results of their work.

THE WASHINGTON MFEIING OF THE CLINICAL CONGRESS OF INTERNAL MEDICINE

OCTOR CHARLES II MAYO president of the American College of Surgeons and Dr. Allan Craig associate director for State Board of Regents on request to represent the American College of Surgeons at the Clinical Congres of Internal Medicine and at the meeting

of the American College of Surgeons—Hospital Standardization Sectional Meetings and the Junior Candidate idea Dr. Mayo enlarged upon these three and urged the co-operation of the American College of Physicians

Too much could not be said of the plendid reception accorded Doctors Mayo and Craig by both the Congres and the kegents of the

.

Surgery, Gynecology and Obstetrics

An International Magazine Published Monthly

LDITORIAL STAFF

FOR AMERICAN COLLECE OF SURGEONS

WILLIAM J MAYO M D

ALBERT J OCHSNER M D JOHN M T FINNEY M D

LEGROU W CRILE M D HARVEY COSHING M D J BENGLEY SQUIER M D

GEORGE E DE CHIWEINITE M D JOHN L JORTER M D T J WATKING M D

E WYLLYS ANDREWS M D TREORRIC A BESLEY M D W R CUBBINS M D

GEORGE F ARUSTRONG M D RUIGLEH MATAS M D

FOR THE BRITISH EMPIRE

SIR ARTHUR MAYO-ROSSON K.B.E. C.B. C.V.O. D.SC.
SIR BERKELEY MOYNIMAN K.C.M.G. C.B. J. RUTHERFORD MORISON M.B. F.R.C.S.
SIR HAROLD J. STILES K.B.E. M.B. F.R.C.S. (Edin.) THOMAS W. EDEN M.D. F.R.C.S.
SIR WILLIAM I. PRC. WINELER M.D. F.R.C.S.

FRANKLIN II MARTIN M D Managing Editor

Volume XL January to June 1925

THE SURFICAL PUBLISHING COMPANY OF CHICAGO
54 EAST ERIE STREET CHICAGO

COPPLET S
THE SURGICAL PUBLISHING COMPANY
OF CHICAGO

5

CONTRIBUTORS TO VOLUME XL

		D. C Transact		LOYFLAND I IIN C 42
ARMSTR NG CEORGE E	34 760	DECOURCE JOSEPH L	. 4	tomera just
	_	Del ee Joseph B	30 9 ^r	MACNIDER VIII II DEB 493
BARCICK II WAINE	8	DEVINE H B		MAGUIRF DAVIELL 523
BARR JO PILL	69 72	DICKINSON ROBERT L	567	MALONES TORN I 4 ?
BAUER C P	7	Drs Jon L	499	
Batma I	4 1	DORAS RILLIAN T	658	MARTIN TRANSLE II 149 287 735
BEEKMAN I ENWIC	10	DREIZEA LEO	23	
BERNHEIM BERTRAM M	8 8			MARTIN HARRY W 485
BEVAN ARTHUR DEAN	280	EAV 5 JAMES	2 9	MATI É CH RIES P 60
B S PLL DOLGAL	3 3	ERRICH UNLINE?	1 7	Maury Jo n M 642
BLAIR V P	65 436	ERDMANN JOHN I	460	MAYER LEO 421
BLAID P BROOKE	367			Maso CHARLES H 477 82
BOSCH ARANA CURLLERS		FAIRCIND D	293	Mayo William J 294 58
BOTTOMEY JO 14 T	36	F INCHILD FRED D	48	714 737 77
BRC YER WALTER M	39		78	McGuire Loi 1 D 626
BROWN ALF ED J	4 3 444	Finey J M T	43	MCNEALY R W
	89 7 7 886	FINNEY I M T Ir	743	M WHORTER TOHY E 00
Brown Lt II	€58	FISHER DAVID	548	MENS NO EDMOND 54
BLDC	1 1	Fosii koto L	76	MEYER WILLY 577
BUNTS FR & F	435	PRAZIER CH REP	876	MILCH HE TY 33
BURGH LACKES E	7.3	FULLERION WILLIAM D	214	Milles Le M 332
BURRA E W LT R I	891			MILLIKEN GIBBS 7 646 847
BUSCH IR THE	6 4	GI ER LESLEE T	630	Mills II W 387
BYERS W GORDON M	439	GA 10WAY (ORCE	7 6	Motse T S 559
		GEECKE MAY WILLIAM H	77	MOD E JOHY T 407
CATIL TAMES 4	227		709	
CAL W LL TOIN A	4 6		7-7	MOYMERAY SIR BERLELEY 778
CAM IC PAUL	,	Harmy K M	04 t	MULLEY THOM S F 635
CAST NO CARLOS \$181	70 17	H rie S C	572	
CHARR VA T PIERR	05	HE WI TE DI ANI C	5	NAF ZIG HOWARD C 431
$H \notin \operatorname{reg}(I)$	43		47	NATHER CAR 8 49
Ci ai topu a Freder	k 562		5	NEW CORDON B 77
CLARK JO N C	8.3	HULLSI K HAR ID F	56	
C) by Tretci will	528	ILLIEVIT A B	575	NE UN JOIN W 343
C FA MIL SYM B	153		3,3	343
COLI RALPII	83	CKSON REGINALD H	55	OCHSY R ALBE T] 336
CONWELL II FA 1E	7	•	43	OCHS\E F \\ ALTO\ 258 495
Cought v W T	99	KERLER VIOLET II	5.0	230 493
COX OLIVER C	795	LOCH SUMMER L	740	PARMENTER F J 531
CRILE G ORG W	7888	KOLISCHE GL TAVE	7 300	
CROWDY C T	gó	LOS 13. GEO GE L	434	
CLRYS IRTITE	96 58	KREISCHU R HERMAN L	360 f33	
	689 7 7 4		93	
CUSIN HARREY	3		7.3	POWERS II 11 84
	-	LANDRY B NEDICT B	sf6	D
DA FRIR W C	583	I ANGWORTHY MITTER AL	15	
De is As B		I ARKIN CHARLE L	278	Transfer of the state of the st
DIVIS CA L'H NRY	568 585		556 585	Direct on Town 11
D 15 LOYAL E	3 9		730 303	The state of the s
DAY ROBERT V	485	LEV E Ez H	78	RAVDIA I S 426
		111	•-	420

SURGERY GYNELOLOGY AND OBSTETRICS REID G DOUGLAS 4 0 SMITH WILLIAM SIDNEY 598 WATERING THOMAS J

17

Reis Ralph A	69	72	SONNELAND S GAYLORD	535	274 687	7 3 857
RICHTER H M		Sto	SOPER GEORGE A	334	WATSON LEIGH F	10
ROBERTSON CARRICK		8	SOUTTAR H S	565	WEEKS CARNES	99
ROBERTSON GEORGE		206	STERN WALTER G	0	W IBLE RALPH EME SON	94
ROEDER C A		7 7	STERNB RG H	776	WHAR ON LAWRENCE R	3
RUSH TOHN L		428			WHIT KER LESTER R 7 (646 847
			TAKATS C DE	2 1	WHITEPORD C HANILI \	7.1
SCADRON SAMLEL J		697	TAYLOR R TUNSTALL	862	WINKELSTEIN A	545
SCHOEMARER TAY		3.5	TOLAND C G	570	WITTER MARGARE S	3
SCHOCNBAUER L		775	TUTTLE HOWARD K	87	WOLFS V WILLIAM L	5 4
SEAGRAVE MARFL		739			WORRAL RALP	174
SEEGER STANLEY F		841	VERRRYCHE J RUSSEL JR	4.5	WYARD STANLEY	449
SHUTTER II W	572	585	VOGT EDWARD C	847		
STODALL R S	•••	281	VOY LACKUM HERMAN L	836	YOUNG HIGH H	97
SIRIS IRWIN E		665	VOSEURG WALTER H	4.4		
SHITH ALAN DETO ST		836			Z MMERMAN L M	8
SMITH CLAIRDANE T		3	WALTERS WALTMAN	x33	ZINNINGER M M	476
SMITH G CLLIOTT		288	WALTON A J	765		

SUBJECT INDEX TO VOLUME XL

absces as a complication of appendicitis 495

ed 435 B Ber Frank 410 Bursatas Metamerphosed fat deposits in subdelto d 92

ESAREAN ect on The low or cervical (laparo-CESAREAN ect on the tow or trachelotomy) 230 297 Clo mg endometrum in 70f Calcium 8 z Cane r The application of facts and opini na resulting

Ankle 1 int Posterior disloc ton of the foot with ut fractur 56 Subastragalo d a throdeus 836
Appendic tis Left sided abdomin l abscer as a complica ton f 403

BASSIVI persi in modified to less in recurrence in selected a ses i lai ral displacement of the cord in obliq e ingu nal hernia operati ns 1 9 B le Some obs ryat he on the entra e of into the Bl dd Ves cov gr Ves cov gus I fistula tilization of thorough do ct n fthes t norv gm I wall for el sure 274

Blood essels Perarterial sympathectomy indicate as for t use circulatory d seas a of the extr maties 828 Bo s Th treatm t of w unds in compou d fractur s of the lo g 120 Cartil gusous t mors of 5 o Hama

carp 1 859 Bow I Mass t more due to d erts ul tes of th large 825

DELIVER's Indiane preparation of the value for 8 Deit ideu M tamorphosed fat d posits in s bdeltoid burs tis oa

Dermond cysts of the floor of the m uth 83 Diabetes S rgic I complication of under insulin treat ment 630

D gn is A review of 500 s I cied laparote mies with spe cal efer nee to err rs in 264 721 Pneumopentoneum as an aid in the of becur pelve lesio and ea ly pr grancy 7 3

Daubragm Eventration of the with report of 7 c se 415 Diphth rate vag it's report of two asea 556 fr 585 Dish face An wiprocedure for the ril fifaces so ph oda og

Dougl's abscess f llowing the closed t eatment of perito nitis 258

ı into the 545

V1

57 tr 58
Electricity The mod in theories of their be ring of contige 1 gy 271 t 300
Embry nicrest (the rinary bladd 528
Emphysema S be tunes of llowing 1 bor 1 p rt of their be ring o

Case T \$ 434

relief of 100

FACIES so ph d d sh face A new proced re f r th

C ty 66 New methods f tre tment a n um of 862

ı

CALL bladt r A c mparson f sodum tetrabrom ŧ

G stric surgery Bas c princ ples and preme diffi lt es

nes and 60

h m 1] t t

m f 6 Irse ts-B ic p cpls a d sup me diffculte in g tric surg ry -H E De i e i Surg ry—H h Delet Ther d stomah—J u Sch m ker 3 5 T ber ul sa f th tongue—J M T Tunney d J M T Finn y Jr 750 U tero le tt cl call senufa noc a d puo s f fom to repot of fu cases -D med Petall 1 Lithus MALFORMATIONS Cong nital ab noe of the ut ru a d a soc t d devel pmental d fects r po t of a met : 7 0 In gl cose treatm nt of urgical shock and non-diabets acido 548 Surg 1 comple t n f CR C 31 M t Sugo ~ 70 1 ₹fer 07 • age t s au 41 ga t ctomy 550 K to tumor neer st 367 Int Joint tr pl t too sand a thr pl tv 28 868 Th m C le M 1 n su g Lond n Print d by Th m s Ea t 727 Th French Su gery of Laparotom es A w f fiv h d d select d with ference to e rs a diagn 64 ?
L p trach lotomy Th 1 we rs calcurate has been 23 tr 07 Le cocyt Post perat e a st dy f th tw cases from th w ds fth W m shosp talm the stat f hew

O ry Specim a of fibroid tumor of tr of Acts omycosis of and tube 5 2 Pseudomucinous cyst of tr 585 F broma of te s8s

DAIN and muscle tens on caus d by f flamm t nof the d aphragmat c costal a 11

I aralys 5 A unusual type of paralyt c beloction d I rat

ty of the hp in operatio f rits cure 422
Peck Washington F 203
Pel ic suppuration Tre timent of 174
Pelvis Treatment feel

Fepte Im

Prestator -P os

Pue per um An namia of with report f ght cases 2 3 Report of a case of perpert w

sex son of kid ey fr al ul u 81

RADIOGRAPHY A c mparison of sod um tetrab m Phenolphthal in with sodium t tis odonh lighth lein in gall bladde 7 Rad um A e adiatio no

uí 'n cal u

Rad ti you direct re fithe لإيس lone bones 1 Retropos tion p rat on Disa te following of uteru td 280

Rob cere cal Pirst do sal mul ting he maldevel pm nt o by pr reas mptoms 18
Roening clony. The mod in theorie 1 lectricity in the reason in a roening logy 27 tr 300

CCAR The de p ed 436

ı

obtained with, 4 r Pineal shift A method for the localization of brain tumors 481

At 1 Dudi y leter 718 Bull Frank 430 G rat Arpad Geza Cha les 582 Hunter John I 284 Munro J hn Cumnu gs 136 Pe I W shostow F 293 Watten John 88r Watkins Th ma J

712 Pon

chol cystography 847 Spermat c ord Lateral d !

Sp Sp e Us ful mechan cal sads in the treatment of fractures

of th 562

Spl a. Th problem fe mpl te r ge erati n 776 Th
rel top of the toe 1 ach one purpu as 77 Cy is

Stone A new method for the emwal of m the uncter a

1 14 /35 _

wound 77 Syr ge A simple method I onn ctog a glass and plage 7 8

of 17 646 847

V۸

I more le lel a diagnos sander imentanda new oper at on fo its radical cu 37 k in l gat on The place of lective in blood a stell surgery 45 te tebra Ueful in chin al aid in the treatment of factue fthe p e co tul a F broad turn is of the with report of an unus al 244 lod n p ep rat on of the for del very Br

ULCERS The tr qu new of g strongenunal to Pe f to toon of all t i duoden mif m ext mal transma as The operative tr atm nt of of the body of the tom ach of Ul a Te tment I wounds in compo nd fract re I long

bones 10 Unibil al cord Report I two ea es of pla t p # 12

Uret

WARREN JOHN 88:
Whatking Thomas J 7:2
Whit I int I int transplantation and a th oplash 282

X RAY At rad atsons proven to be f alue to the rat ex-

BOOK REVIEWS

- A

 \mathcal{D}

v MD

n

Normal B nes and J ints vol i ISDORE COME M D
FACS 59
The Principles nd Practice of Ob letin Joseph B
Delen AM M D 4th ed 720
Delen AM M D 4th ed 720
Delen AM M D 4th ed 720
Delen B LCVO

MD nried 59t Les C lotyph lites et le Syndrome de la Fosse il aqua dro t Les C lotyph lites et le Syndrome de la Fosse il aqua dro t

W SAME ON (Eng) 2d

ed 3 3 Werden and W ken cines d utsch n Fra en r t s Leben serri erung A Martin 720 Coll cted P pers of the M 30 Chn c a d th May Found in Edit d by Was M H Mellin 1 xv 1912 14

International **Abstract of Surgery**

Supplementary to

Surgery, Gynecology and Obstetrics

EDITORS

FRANKLIN H MARTIN, Chicago SIR BERKELEY MOYNIHAN KCMG CB Leeds PAUL LECENE Paris

SUMNER L. KOCH Abstract Editor

DEPARTMENT EDITORS

DEAN D LEWIS G neral Surg ry CHARLES B REED Gyn cology and Obstetn . JAMES P FITZGERALD Surg ry of the Eve LOUIS E SCHMIDT G n to-U in ry Surgery PHILIP LEWIN O then de cure ev

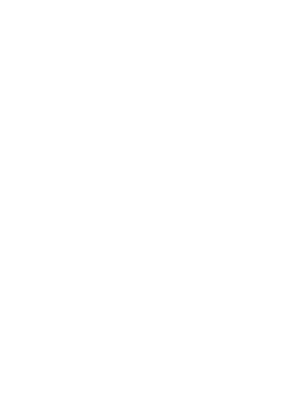
ADOLPH HARTUNG Ro atg nology FRANK I NOVAK It Sure to of the Ea Nos ad Thro t

CARL A HEDBLOM Che & Surgery

CONTENTS

I	Index of Abstracts of Current Literature	111
11	Authors	18
Ш	Editor's Comment	×
IV	Twenty Years of Surgery	447 471
v	Abstracts of Current Literature	472 532
VI	Bibliography of Current Literature	533 554
VII	Volume Index	1 xxv1
	II IV V VI	II Authors III Editor's Comment IV Twenty Years of Surgery V Abstracts of Current Literature VI Bibliography of Current Literature

Ed torus ommun cation hould b ent to Franklin H M rtin Ed to 54 East Eri St Ch cago Ed n land Bu in Offic 54 East Eri St Ch go Ill no USA Publ h fo G tBrit n: B II Tind II & Cox 8 H nrietta St. Covent Garden London W C



CONTENTS-JUNE, 1925

TWENTY YEARS OF SURGERY t A Survey of the Progress of Chest Sungery in the Last Twenty Years Ralpi B Bell

١	man MD FACS Chicago	447
2	PROGRESS IN GENECOLOGY IN THE LAST TWENTY YEAR John R Fraser M.D. C.M. F.R.C.S. Monireal	452
3	A GLANCE AT UROLOGN IN THE PAST TWENTY YEARS LOUIS E Schmidt M.D. F. A.C.S. Chicago	457
4	TWENTY YEARS PROGRESS IN CERTAIN PHASES OF ORTHOPEDIC SURGERY Philip Lewin M.D. F. 4.C.S. Chicago	461
	ADVANCES IN RORNTGENOLOGY IN THE LAST TWENTY YEARS Adolph Barlung N.D. Chicago	466
	ABSTRACTS OF CURRENT LITERATURE	
	SURGERY OF THE HEAD AND NECK Phayne	
	Head New G B The T e time tool Maj gnant Turn vs of the Pharynna d N hoph rynn	475
	Bernstein A P Feer A Fee	47 475 477 4 8 478 478 478
	Far L 4 R Statists of Rult 12 hr I at an a Chronic Ot irbo: unO 600C ses 474 Mouth Mouth	479
	anous Buckness B Buckn	480

INTERNATIONAL ABSTRACT OF SURGERA

JEZIERSKI S Cases IP raton to a the Gyarcol go

iv Sympathetic Nerves

Hes - c -		cal Cl me in the lenod from 9 3 10 9 3	49
		Havman B S Acute General Pet nous a d	
	451	Its Tr sim 1	401
LOSERCEFN H Crite 1C ninb to s nihe S r	4,,,	Gastr Intestinal Tract	
great Tre timent of \ gr \ Prect ns dBr n high	4 5	B TI VELLI R P lorus Sp sm d Its S recal	49
Miscellaneous		Her AF and Baio s P J D riicula I the	47
SICARD DE CENRES R d Co TE Tarab a F llo		St m ch A Poss il Sourc f Erro in the Rad I great Dogn s s f G stric Ul e	
ingth Use of \ t tet u S rum	452	SHERREN J Ac tellemat mes s nd Melena	49
MORIC ISL BEAUGHENT and LAGRET P rafys al 1		CARMA. A.D. Te hm af fulsingh Roente n f e	49
I ng Imphilacte Injects n of init tan s Serum D ath Sit en Days it the Injets	43	I Dem n trati n of Les n High in the St mach d n the P ste o Will	
ceion o anto i ta osys at mem ta	40	LENISON R The Frque cy of Ga troy) nal	493
SURGERY OF THE CHEST		LI ers	494
Chest Wall and Breas		RASSEL IS A The Treatment of G str. Hem r	401
Cire	451	C TILE G F The Surg ry of Ju tapylor c Ulce	405
Dr.	453		
n.c	483	Divid P Th Op the Te tment (Perforated G tredued n i Ul r I die tions F riushed by the in t w ind Path logical dy fit left ration	4th
Trachen Lungs a d Pleura			490
Score W. J. M. Postoperati e Maxine C. Hap. 1.	493	LORER W ACI of Ind Experimental Contribu- t non the Pillem (Periton as Det the Pefet for the dode al VI en d	
Jesp no S F in Brides nih R pratty if		It seeu læ	497
Upper Digit it Trick	5	I ST RER II UI Crin m of the St ma h	497
Ascennia I I C nitritut to the 5 bject of I straiteur l'Thorn mi sty in the Treatment of Pulm ry Tube cul	455	RYTH RE T T CR of K t I roat n I th Sm III test W tre F W The Cl Imp rean f Chronic	495
Property F Th To to tof Pinn .	7.	the F W The Cl Imp rian Chronic Ch nee to the left of	494
Tubercul with the Helt of Artifi I i'm u	497	Li er Gull Bi dder Pancrens and Spl en	
St CERJJ P moth v	496	DRIVER J B To Signy f Ja dec	429
Auberso I B Jr Indi to f There plats	457	BL tock A A St. 1 & 1 St. dy 1 958 C 1 Bl n Tract D se	495
GR. I AM L \ Caute y Pneumect my f Ch n c Suppu at n I th L ng \ R port T enty	1 8	joot 4 ad Bix 2 \ C tra 1 B 1 ry F(t 22	500
Lior sen L Printy T mr ofth L &	499	MOINTEN SEB LEPA CEL	300
LEATHERSTON H A 1 j ry t the La t n f	5 4	Miscellaneous	
		BRICK, # W M II to my ss	5
Heart and P resident		CRIL G W I t perati e C mpl cat s f Ab- d m I Ope t	50
HALAJ ad Town w V I urol at Pacumo-	4%0	GYNECOLOGY	
Esophagus and Med stimum		Litera Citazone	
•	130		5 3
Possi & T Inteth ra & Cooph g pla ty	400	HEA	
SURGERY OF THE ABDOMEN			5 3
Abd m a l Wall z d P nton um		SIF	
Toxes I L hlp tel Eff h Smith		6 mob n Con Tre tm 1 g	5
Acut I tap the 1D ea	40	n y = 0 = 10m	

Bladder Urethra and Penis

Miscellaneous	Bladder Urethra and Penis
LOFRER \ J & F Th One on e of Cancer f the Gent 10 is a s I Wome in B t 5 4	Harmove T L Tagonitis as a Ca s of it mable Bladit
lterus O Th Der Iff ets f Heat Appled n Vari s Ways Gy ee lgel Cnft as 33	Lo de ato s B ed on Thuteen Cases of Divertical mofth Bl dd r
OBSTETRICS	DIFESTEL I G and LAYARD P The Tech sque
Pregnancy and Its Compl cattons	nd Res it of the Apple t n of Ult a tlet Raysm Clin in Unibrit
ANALS H Thyr dFunt nin Pr gnancy 475	Gental Organs
Texter II k The Treatment of Aborts n 5 6	TRACCIlir softheT sticle 53
Labor and Its Complications	RETTERER L Th C neral C nd to and Struc tr of the Test cl T o leas liter R s ction
Oth Methods III t m g D 1 ty 506	of the Las D fer n 513
Puerperium and Its Complications	SURGERY OF THE BONES JOINTS MUSCLES TENDONS
Sunt G O th T tm mt IP erpe ITe e	Conditions of the Bones Joints Muscles Tendons Ete
and Spic thort n ni Dkn Shin con	M cG ire C J Jr nd McWnorrer J F Sir com of Bo e in i siye of Fifty C ses 5 4
Newborn	Bt on one J C Be eTum is Myxem 514
FOR CR. IR B ELE II 1 C tamm 1 f th Pe main B 7th n th Childs (In of I's burg	None T P Myo is O to son Chin cal and
M scellaneous	Paul JR ASt dy of an Unusu IC cof My sits Cs 6 ans
	I SCHLE 1 De Quers & Sten g I br u Ten
ferenski S Cas soffe t to the Gye lx clcin i the Fiding stores 49	do agenti with Stylo Hiroc s fithe Rid s 515
Wrso BI In iddr niheT ching fob	Source F \ 11 Sppu at n I the C at I Curu i s t In ert ou 1) ac es 55
Criew WO Moling of the lill d wi	LERIA Som C n le at não Cersi l'Rib 516
Its C equ c s go;	FINE J M T d Hucusov W Spasmod c T tooli
GENITO URINARY SURGERY	Car & J & Localized Affect n of th Spie S g
Adrenal Kidney and Ureter	g in Ct ochond it of the Verieb al B di th the Claic II pet IP it Dies < 7
Milling I Falk as W (Th I flux I the was a kid v From a Rel a to the Pablim (Ralbymp the tray 5	
JASFA I Bl ing fr m th hadn v m th t Dem nstrabl C se Fa at alliamatu a 50'	Desire R Int all Injus fith kne Joint I mag fith Crucal Lgament Fatue of
BGERCT CaRpt Unul	th Inte dil id I'm presith Tiba 58
OCKERNL D F Pe n phr ti Ali B	\ 1-u 5 o
lgi limbica 50 Mcks (F ad Suits P G Siliary to	Surgery of the Bones Jo ats Mu cles Tendons Etc.
C3 is 1 the kid 40	REER H AN M tholly the Imprement 1
Parc F4 dRut IJ PpN 3 Cyst do- ma ith kiny 4 soci ted that pllom t 3 Gr th nth F1 Urt nilladi 50	Tend n Sut es After Ruptu e f Fl zer T n dom
Grib nih Pl Urt ni Bladi go	
DELT \ I d I ISO]] Thiff tilg t fB nh fth R al-Art y 50	MILLER D L Tw H ndred Case f P alytic
Jost 1 E a 1] NE JI TI 5 g v fD 1 Urc	Fractur 2 and Disloc tions
Cirt i 1 1 prototh V Ca D ng	CLASSE C T) Tr atm nt of Fracts of th
3*	f mu by M ISk let iTaton 30

INTERNATIONAL ABSTRACT OF SURGERY

vı

STEINER W Fractures 6 the Tars I Bones C flect ed by the Swas Accident Insuran e Office in th Period from 19 o to 19 1 574 Cases	521	Sosuan M C. and Purman T J Rocate log cal Aspects i Brun T mors—Vienney a ta	,
SURGERY OF BLOOD AND LIMPH SYSTE	-	DE BEULE The R ents n Rad um Surgical Treat me tof Cancer fib Breast	
Blood Vessels	cms	HURST A F and Rathers P J Di enticula of the Stom ch A Poss ble Source f Error in the Radiological Diagnos sof Gastric Ul er	ė
CHOTE A L. Injury to the Vena Cava Dorms Nephrectomy	52	CARMAN R D Technical A data the Roe Igenolog	. *
Blood Transfusion		St m chandon the Post ri r Wall Nostz T P Myosita, On ficans A Clin c I and	٠,
FIANDIN C and Track 1 The Tran to on f Arsenobenzolated Blood the Sey re Int t al		Kad ological Study	5
Ham rehages of Typh id Fever	212	besculous Lymphomsta	5
,		Poster C A The Surg cal Treatment of Rocat gen RayLes o 3	5
Lymph Vessels and Glands	233	Maras R Remarks on the Delayed r Rem to Appearance 12 Ray Burns Alt r Lo g Periods of Latebry	; ;
REYN A Rocatgen and Light Tre tment of Tuber cut a Lymphomata	522	Prantze G E El ciroco gulat n or Des ecation in the Treatro t of Keratore and Malginant Dog nerate Which Follow Radiod invation	•
SURGICAL TECHNIQUE		CASP J T Rad at a Therapy of M guant	
Operative Surgery and Technique Postoperati e Treatment		Dots H P Botts en A. a d Harras F W Immed at M tabol c D sturban es F flowing De p Roe 1g n Ray Therapy	: 51
Cattle G W To toperati e Complications f	592	Radaum	-
		Broopcoo J C The Er on of a V 5h ped Pere of th L er L p V m s Rocatge Ray fRad um Tre tment	47
FRATHERSTONE H An Inc its into the Causation	5 4	Dr Brute The Roe to n Rad um Surge al Treat	
of Fostoperati Pue monta	5 4	me tof Cancerol to Brea t Heyran J Froal Re its in the Rad um T at	45
Antiseptic Surgery Treatment of Wounds and In- fections		Herran J Froal Re its in the Rad um T at m at of C run ma f the Cernz Ut ri at the Radium H me blockholm beneden T y Revoen ne with th	50
BLACK K AWeak P tin Stenliz ng Methods	5 4	2 4 4 1 Expert ne with th	
RUTELLO A and RARMEL O The Demo st at on of I tanus Bac II in the Intestin and Internal			50
Organs of Healthy Perso s N t S k with	5 4	Radı therapy	53
		Miscellaneous	
Anesthesia			5
Priseing C A Cr 1 tomy oder Loc 1 Anna thes a	472		
RA SCINCE G Long Conti ued I ar lys f the Arm Tollow og Pl v a A switter a f the Upp r Arm	525		5
HYSICOCHEMICAL METHODS IN SURGE			52
		MISCELLANEOUS	
Ro nigenology		Clinical Entitle —General Physiological Conditions	• 473
Proce f the Low r Lip V rsus R entg R)	474	HAKE GF I op ot C taract Shenkey J A utellism tent s nd M for a	49
o Radi mire the t	48a	Ware F.W. Th Clin Happort & Chronic Chang 5 th Appendix	499

Polax JO Ut rine Hamo rhag	5 3	General Bacterial Mycotic and Protozoan Intection
HANDLEY W. S. Lup s. Its Surgical Aspects.	5 8	MELENEY F L and ZING DAU ZAI The Acti n
CHILD C M Q ant tailve Factor in the Susc b lity of Li Cells to External Ag nt Ewro J Th D ag os sof Can er	ptı 528 528	of Acrifia ine on the Bl od nd Certain Tiss es f R bb is with Part ular K fer nce to H=m lytic Strept coccus Septicarmia 53
Wood F C The Experim ntal Path 1 23	£ 528	Surg cal Pathology and D agnosis
DUNIAN J D The Post of V ew of th I ter in the Study of C nc r	nıt 58	Moone H F Th Basal M t b l c Rate Its Det mun tion a d Interp tation 47
ENGMAN M F External Cancer JUND E S The Surgic l Treatment of C no	529 530	He pitals Med cal Education and History
Mayo W J The R l t e Values i S rgery	2 d	Warson B P An Address n th T achi g f

	VI INTERNATIONAL	. AB	STRACT OF SURGERY	
	STEINER W. Fractu a of th. T. rsal Bones Collect ed by th. Swiss Acr. d. t. Ins. rane. Office in th. Period from 19. to 1921 574 Cases	s t	Sosman M C and Purman T J Roc to nology cal Aspects f Brain Tumors—Menings in ta Dr Brute The Roenigen Rads in Surgical Tr	4
	SURGERY OF BLOOD AND LYMPH SYSTE	EMS	m t f Can f th Breast Hers A F and Briggs P J D verticula of the	4
	Blood Vessels		St m h A P ss bl Source of Error in the R di I gical D g si f Gastric Ulcer	
	CHUTZ \ L Injury to the \ a Ca a Du ng Nephrectomy	5	CARMAN R D T hucal Aids in the Roents 1 g sc 1 D m trat n f Lessons High in th	49
	Blood Transfus on		Stomach and the Posterior Wall No te T P Wis to Ossimeans A Clinical and	49
	FLANDIN C d TZANCK A Th Trnfs [Arsen benz ! t d Blood i the 5 r I testin]		Rad ological Study	51
	Ham rrhages of Typhoid Fever	522	REYN A Ro ntge a d Light Tr tm nt of T berculous Lymph mata	52
	MELENEY F L and PUNG-DAY ZAW The Acts of Acrost vine on the Blood and Certa Tis es f Rabbits with Part c l Referen to Hz-		PORTER C A The S rgical Tre tment I Roe t	5
	m lyt c Streptococcus S pt armia	532	Maras R R m is on th D layed Rem to Appearance of Y Ray Burn After Log P node f Latency	
	Lymph Vessels and Glands			52
	REYN A Roc tgen and Light Tr atment IT ber cul us Lymph mata	5 2	Pranter G E Electroc gu! tion o Desec tion in the Tre tim nt of K ratoses and Mal grant D g eration Which F il whad odern tit s	5
	SURGICAL TECHNIQUE		Case J T Radiation Therapy of M I grant Disease	5
	Operative Surgery and Technique Postoperative Tre iment		Doub II P BOLLIGER A nd HARTMAN F W Immed at W tabol D at ban F II wing D pRoe tg R y Th rapy	5
•	CEILE G W Post persts e C mplications of Abd minal Operats s	5 2	Radium	•
	GOECKERMAN W. H. The Effect of Surgical Tra- ma in Pat nts with Syph 1 with Speci 1 Refersn e to the H ling f th. I ostoperati Wound	524	BLOODCOOD J C The E is on of \ Shaped Pecc of the Low Lp \ers s Roc tg R y Rads mTreatm at	47
1	FEATHERSTONF II An Inq ry int the C sation of I stope at Pine mo	5 4	DE BEUEE The Roenty R di m Surgic Treat m t f Canc of the B e st	483
	Antiseptic Surgery Treatment of Wounds and In fections		Herman J Final R s it in th R d m Tr at me t f C reinom of the Cervix Ut n at th Radium Ifome Stockh im Sweden	5 :
	BLACK K A Weak Point in Ste ilizi g Methods	5 4	SERLIGMANN G Two 1 ars Experi ce with the C mbin : n Tr atm nt fS igery and R d um R ys in C ses f Carrinom Uteri	5 4
1	STEELE A and RABBEL O The D m t b 1 T tan a Bacull in the Intests and Intern t Org s of Ife ithy P 150 Not S k ith Tet s	5 4	Mano W J Th R lat e V lues of Surgery and R d oth rap)	53
			Muscellaneoua	
-	Anzesthes a PLSBERG CAC n tomy dr Loc IA are		LTERMAN O Th Deep Eff ts flf tAppled in larrous Ways n Gyn c 1 gr 1C nditi	505
	th s a RAESCHEE G Log C nt ued P rally f th	472	DUTESTEL L G and LAZARD P Th T ha que and k sults f the Applicatio of Ultra 1 t R ysin Chro c Uretbritis	5 2
	Arm F II g Pie Anæsth i the Uppe	525	From A Ros to n and Light Treatme t of T	5
3	PHYSICOCHEMICAL METHODS IN SURGE	RY	MISCELLANEOUS	

Roentgenology

BLOOD OOD J C Th I'x of a V Sh ped
Pe f the Lowe L p V s Rontg n R y
R d m Tr tm nt

Balley P Th R ults f Roe tg Th raps n Bra T m rs Chaucal Entities-G ne al Physiological C nditions

473 492

498

II ENESS CF I p tCtrat

AUTHORS

OF THE ORIGINAL CONTRIBUTIONS WHICH ARE ABSTRACTED IN THIS NUMBER

D fest I I C Stz Du h m J D 5 8 D 11 1) 11 496 Llocsrl 488 Figure U F 5 9 I schle A 5 5 Twig J 528 lag rt 45 l'atherato e 11 524 Fin 3 J M T 5 7 Finst e H 497 H 48 1 loerck Fors he Bo Le H 506 Fors hn Bo ke H 50 fra c h 53 fr ser I R 479 Fra J E 475 Fr de ld II 473 Fr ed nw ld J 5 473 F 1 A R 474 Gill A B 5 9 Oill A B 5 9
Gla 1 1 C J 51
G terms
G ab ---S2 W EE 5 5 G ah m E \ 487 Cr. n. coct 11 O 507 Hain H C 473 11 11 1 1 489 II rrm FL 5 Ila dl 3 W S 49 528 II k C 1 473 II tman F W 5 7 Ifeym J 5 3 If th W 470 If gh n W 517

Hunter J I 481 Hurst A F 40 Hurst A F 40 Lekson A S 458 Jak H 50 Jasen M 58 Juss P 508 Jasherg S 485 J sberg S 485
Je rsk S 49
Jels J J 509
Joseph E 5t
Joyce J L 49
Judd E S 500 530
Karr W G 5 3
Karr W G 485
Lath m O 485 Ja ard P 5 2 Lew ohn R 401 Loehr W 497 č 1⁵⁰⁵ MacGu Mata R 56 M 50 W J 535 Mck m G F 5 Mckm G F 50 McWhort r J E 5 Mel y F L 532 514 Mel y F L Mille O L 52 `∢8 M e H F 477 Mor ha Beauch nt 492 Mynh 5 B 500 Mynh 5 B 500 Neg Al 5 t New C D 43 Nel T I 515 Och bl d 1 t 509 Patch 1 S 500

1 J R 5 5 I ki s G 5 8 Pfahl G E 526 Pol k J O 5 3 Forter C A 526 P tn m T J 480 Raeschke G 5 5 Rafsky, H A 404 Rahmel O 5 4 1 etterer E 5 3 Peyn A 5 2 Rhen L J 500 Ro s ng T 489 R ef H 5 0 Rytkoelae T 46 Salue G 5 6 Scott W J M 484 Scott W J Al 484
Se I gm nn G 504
Sherre J 492
She rd 48
Singer J J 486
Smith P (5 9
Sokoloff N W 515 Sosman M C 480 Ste rer W 521 Thomson Sir St C Tow ruw V 480 Truslot W 50
Truslot W 50
Tutile H k 56
Tanck A 52
Verhoeff 1 H 42
Wata n B P 507 Witte F W 498 Whit L E 473 Wood F C 528 Z ng Dau Z u caz

BIBLIOGRAPHY

Su gery of the He d and Neck I t L L L L L L L L L L L L L L L L L L L	533 534 534 534 534 534 535	Nec llice Gentto Urmary Sugery Mt al & 1 , d Urt r Bl dd U if nd i (11 f gan 11 fl ano	546 547 54 547 547 548
Surgery of the Nerrous System B and It (ing Cr salves Sp (Cord dl) (r; I right live Supplier ve	536 536 536 536	Surgery of the Bon s Jo ats Muscles Tendo C dun fth B c J ts Muscle Ted Sng ny of th B n J ts Muscles Te l Its ture a d D local	s 549 550 5
Surg ry of the Chest (! tW la lB t T h g d leurs He ria d ari m	33 537 53	S gery of the Blood and Lymph Sy t ma Mond Le well Mond T f Tymph \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	5
C they a late to m Surgery of the Abdomen At m althalia diret num (to the time Tract	535 535 535 530	Operat Sugra ad Tech q P t pratite T restment A to pic Signary T to t f N ad Infect fect testhes Signal I trum t n Apparatu	5 1 55 53 5
Cillid der lan and Spien Ullen Oynecology Lierus	541 547 54	Phys cochemical Methods in Surg ry Koe ig a l g. I ad m Mi if ecu	5 8 553 3
Vie la II suter eC dt n ft mal(ut l N ≪ lis Obstetries Preg c a lit C mpl at n Laf lit C compl t lucrrerum a lits C mpl at	543 543 543 544 545 545	Missellaneous Challantus—Crallah IgcalCodt Geallantus—Crallah IgcalCodt Geallantus—Crallah IgcalCodt Dectis Cld Small thigalD s Harl Wed liftu in ill t Mcfaljari c	553 554 5 4

INTERNATIONAL ABSTRACT OF SURGERY

IUNE 1925

TWENTY YEARS OF SURGERY

A SURVEY OF THE PROGRESS OF CHEST SURGERY IN THE LAST TWENTY YEARS

BY RALPH B BETTMAN M.D. FACS CHICAGO W fill her to S ta m A soc t At 1 S g M h iRes H ot ! t

T was just about twenty years ago that sur geons began to realize the possibility of performing operations on the intrathoracic organ. Up to that time the thest was a region upon which only very few dared to trespass and this tre passing was usually attended by the gravest of consequences There were two ap parently insurmountable obstacles one a real one the danger of interference with the physi

been increased Willy Meyer of New York con structed his positive negative pressure operating He s to

head part or thorax part of the divided operating chamber and to open the chest widely without interfering with respiration

Although these pressure chambers proved that operations on the intrathoracic organs were possi ble they were so complicated and expensive as to be impractical Soon after their invention Meltzer and Auer made the important discovery that if air were forced into the trachea in a steady stream and a pathway left for its return respira tory interchange of gases could be maintained urthout the intermittent expansion and collapse of the lung This method of intratracheal in sufflation was quickly adopted and repre ented another milestone of progress in chest surgery

Shortly thereafter Meltzer showed that the comparatively simple procedure of intratracheal insufflation could be supplanted by the still

onstration that the second was without any basis in fact constitute one of the most interesting chapters of surgical history

DIFFERENTIAL PRESSURE

The first steps in overcoming the danger of

t inicial respiration by forcing air rhythmically into the lungs Shortly thereafter Squerbruch bult h 5 .

and the nns

CALCINEUR oon led to the construction of the positive pressure cham ber in which the patient's chest was opened under the usual atmospheric pressure but his head was in a chamber in which the air pressure had oxide-oxygen anæsthesia. If the mask is held tightly over the face and if the flow of the gas and the pressure in the outlet valve are properly regulated the chest can be widely opened without collapse of the lungs and without pneumothorax

EDITOR'S COMMENT

Thas been the ambition of the editors of the International Annual Rect of Strokery to present to its readers each year an authoritative review of the outstanding developments in each of the various field of surgery represented in the Amstracer In celebration of the uncetteth amiversary of the founding of Surgery (Sync,0000) with Observates, it seemed fitting to go a step further and to present a comprehensive summary of the outstanding achievements of twenty years in a number of helds of surgery particularly those which have

Drs Louis

\ray demonstration of lesion high in the

review of the subject of acute pancrestitus (p. 500). Blabeck a snalps of a large number of cases, of these should be should b

If J blayos thoughtful consideration of the relative values of surgery and radiotherapy (p

A number of important abstracts concerning the surgery of the upper abdomen feature the section devoted to abdominal surgery in the

1 492) ich) by arative

examination of the various pathone, i.e. conditions found in perforated ulcer and of the methods of handling them by Duval of Pari (p. 496) and a review of a number of technical aids in the effect of ligation of the renal arteries (p. 509) Janssen's review of the etology in forty three collected cases of essential hamaturia (p. 508) and Joseph and Janke's di cussion of the treat

month assue by a number of particularly valuable papers. Graham a report of the technique and results of cautery pneumectomy in the treatment of chrome lung suppurations (p. 487). Archibald survey of the indications for and the technical survey of the midications for and the technical survey.

the enthusiasm of Murphy had been a tremen dous timulus to its use Thousand of artificial

and then the establishment of open drainage Stewart at the Rockefeller Institute advocated

trol of the pressure was a marked advance in safe guarding the procedure Within the last few years the technique of artificial pneumothorax has been

been advocated. The first phrenicotomy consists in cutting or paralyzing the phenic nerve on the affected side to paralyze and thereby elevate the disphragm. The second the destruction of picural adho ions by the cautery method of Jacobaeus consists in the identification and localization of the adhesions with the thoraco

anger or uncontrollable memorrhage

EMP/EM/

In the field of acute empyema the chief advance made in the latt wenty years has been the swing

ters of 1917 18 and 1918 19 emphasized the er ror of the methods then in use

The w rk of Graham and Bell of the Empyema Comm ion of the United States Army proved that the vast majority of the deaths were due to the e tabli hment of open pneumothorax in the

A reently reported variation in the technique of treating empyema is the combined open and closed method of Pickhardt. In this procedure the cavity is opened by a large wide interestal measing carefully explored and drained of its contents pockets are opened and a tube is placed in a dependent portion of the cavity. The original wound 1 then tightly sutured and the drainage (tube a statched to a suction apparatus

CHRONIC EMPYEMA

In the field of chrome empyema two new facts have been established first the possibility of steril izing and eventually healing a great number of cases by painstaking dakinization and second the necessity for complete obliteration of the empy ema cavity to obtain a cure In the method of Schede Estlander Fowler Delorme and Ransohoff the attempt is made to obliterate the cavity by eol lapse of the ehest wall desortication of the lung or both In an ingenious method devi ed by Fmil Beck a sliding skin graft is used to cover the inte rior of the eavity and thus transform the cavity in to a pocket lined with epithelium. This marsupi alization whether practised as advocated by Beck or performed in the manner extensively used in the Army in which the wall and roof of the em pyema cavity are out away and the defect is al-lowed to become covered by granulations and epithelium has proved of invaluable assistance in the treatment of chronic empyema

PULMONARA SUPPURATION—LUNG ABSCESS
BRONCHIECTASIS

The treatment of pulmonary suppuration has been greatly improved in the last twenty years

abscess will decrea e

The bronchoscopic suction irrigation method advocated by Lynah and Yankauer has yielded favorable results in the hands of these surgeons

t pirated tith ut the admission of air the pus being liquefied by frequent instillations of Dakm's olution

The method advocated in the United States Army for the treatment of acute empyema consited in repeated a pirations of the empyema cavity until pleural adhesions had been formed

4UMC55

For both lung abscess and bronchiectus: ex trapleural collapse has been advocated when THE RESISTANCE OF THE PLEURA TO INFECTION

T " " " I'll of th

ı ×

PHYSIOLOGY

Empyseus Commission of the United States Army, it is now generally reco stand that the mediastinum does not form a rigid partition be tween the pleural spaces but bules under pressure. Therefore if a unitateral open piecum on the produced in an others is enormal chest the lung on the side of opening will be conjusted and the mediastinum will be forced or

the aid of differential pressure anæsthesia stabilization of the mediastinum by traction on the pre-enting lung will immediately allay the alarm ing symptoms

understood

Thus we have come to realize the true dan ers of open pneumothorax and to know how they may be overcome

In interesting experiments. Graham has recent by shown that transudation is brought about during the respiratory cycle by aspiration of fluid into the visceral pleural lymph spaces dumn in spiration and its expul ion into the pleural cavity during expiration.

The numerous studies of postoperative pul monary complications especially those of Cutler and Hunt have definitely shown that a large percentage of these are due to emboli on mating in the zone of operation.

DIACNOSTS

In the field of diagnosis progress has been made pars passe with general advancement. Twenty yearsago X ray diagnosis was inits infoncy. Since in the majority of chest conditions the X ray is one

niuai t nto the al pneu elly of

adhe ions will give to a open pneumothorax may be fatal or not depend ing upon among other factors the degree of the collapse of the lungs and the vital respiratory

> he he en nt tal

t ff jently to

ARTHULAL PNEUMOTHORAY

wound into the pleural cavity. The tube was left closed or attached to a suction apparatus to over come a pneumothorax. Undoubtedly one of the

method of Petit de la Villeon Petit de la Villeon introduced a forceps into the thorax through a small stab wound and then extracted the bullet under fluoroscopic guidance

EXTRAPLEURAL COLLAPSE OF THE LUNG

The first extrapleural thoracotomy was per

| h | h = ---

it was too radical and by removing the entire bony support of one side of the chest it often cau ed symptoms similar to those of an open pneu mothorax

In order to overcome the disadvantages of the Brauer Friedrich operation numerous modifica tions were desised. These were undertaken with three operative ends in view (j. a less radical procedure (z) as much collapse of the lung as possible and (ig) preservation of the tramework of the chest. Three modifications are northy of onte-whose of Sauerbrich Winns and Brauer.

Sauerbruch discarded the anterior part of the Schede operation and resected good sized portions of the rib. from the first to the tenth inclusive By performing this operation in two stages and by removing the lower ribs first he reduced the danger of the procedure.

Wilms worked out the so called columnar re section in which through a parasternal and para vertebral incision comparatively short portions are existed from the ribs anteriorly and posteri

indications and contra indictions variations in technique and especially the results to be expected are worked out

The lotegoing is only a very brief resume of the advances made in chest surgers in the last twenty years. Only those points which seemed most important to the writer have been men tioned. Time will no doubt show that many contributions here passed over as of leser worth are in reality, the foundations for important future progress.

The subject of catdiac surgery has been pur posely omitted as it merits a separate report As America has had an important part in the development of chest surgery. I have chosen to

on used and others

I ned the bits of knowledge necessary for the more spectacular di coveries

Twenty years ago chest surgery was just emerging from the darkness of the middle ages Today it is a well developed branch of surgery bearing great promise of even greater growth because of adhe ions artificial pneumothorax is found of no avail. This has been effected 11, the method of Schole or by servicel procedures in supportative conductors, reflecting the an in tuberculous Tuffice has attempted to appear and appear first by appears in Forcomptes upon the appear and then by compression. Forcomptes on the use of fat natafilm or mu cle has been recommended.

In the treatment of lung abscess it has been shown that the formation of adhesions can be

difficulties in the after treatment of such cases is due to the fact that the bronchus of the exe ed lobe cannot be permanently closed Clinical at

the pleura over the affected area by removal of the overlying skin mu cle and portion of ribs and then picking to stimulate the formation of adhesions. In sub-equent stages the lobe of the lung is removed by the actual cautery fortham uses a hot soldering roof for this purpo e

lobectomy has changed a formidable operation into a relatively simple and beingn procedure Meyer ugge ted as a conservative method of

draining pulmonary suppuration the estable a ment of an epithelium lined tract leading from the skin to the ali cess cavity. Through the lung lip fistular permanent drainage is obtained. Plout in 1014 showed that pirochates similar

to the c often f and in the normal mouth in the

MEOPLASM OF THE LUNG AND MEDIASTINUM
In the field of cancer of the lung little of practical value has been discovered. The operative

agastrosiom, wa first performed. Then throu has transpleural approach the exophagus was divided below the tumor and just above the diaphragm discreted free throughout its entire extent in the chest and brought out through an incison in the neck a few inches beine build under the

Innumerable other operations have been de vised for the relief of cancer of the osophagus but as yet we are not in a position to judge their value or to proclaim them as definite advances in thoracie surgery

m re f

bright crimson glow of the li ht shining through the translucent wall of the ocophagus readily

packing or the use of a sliding skin grait

INSTRUCT OF THE CHEST

With regard to injuries of the thorax many lessons were learned during the War. It was shown that the thoracic cavity can be carefully exclused that injuried pullmonary tissue can be

shown that the thorrice crivity can be carefully explored that injured pulmonary tissue can be resected and that the cut surfaces of the lung can be sutured. Fat and fascia transplants fa ill reted greatly in the suture of the pulmonary Histologically, the lining is similar to that of uterine hematomata due to the retentior of

to decades leads to the conclusion that the

histological appearance to that of menstruating

technique has improved and many of the risks of operation have been materially lessened in spite of the fact that operations practiced for main must deae have become more extensive and radical but from the point of view of remote results there is be sear e for satisfactors.

The progress made is in no way commensurate with the effort expended for even in carefully

parently onted by contents a caping tor p forated oversian hamatomata suggests that the epithelium giving rise to these implantations is

-- } th f 1th s

strated on epitinent in these which and a conimplantation adenomata

implantation adenomata
It is rather ignificant that in all cases in which
exten ive implantations were found there was an
as ociated ovarian hamatoma showing perfora
tion

The e ovarian lesions therefore unders, a war ety of changes. The smaller on a nearer the surface of the ovary which are prone to react to menstruation become distended and rupture or at off their lining epithelium and disappear.

The deeper hamalomata slowly dustend until priorating occurs with residuant adhesion of the organ to adjacent structures repeated reactions to uccessive mentitural processes occur with often trepetted perforation. As the reaction to mensimation in of nece stip destructive by reason of its location and a the repair and repengation are slow and occur imperfectly the ultimate tend ency in uch clysts is toward retrogre son. The clinical practice is a yet ill defined. At times the symptoms and signs imulate those of chronic policies from the problem infection.

The reactions of the living of ovarian hæma tomata of endometrial type to menstruation pregnancy and old age are similar to those of the interire rinkosa

The operative treatment of uch conditions could appear to be governed entirely by the character of holes.

implintat general i much o

ind cate I as in an I civic surgery

in discus ion of the changes in the surgical treatment of executions of the certix in the past

a burden should also be borne in mind in any at tempt to gauge its value

In the final and is the chief problem in olvid in the therapeasis of carcinoma of the cervit can be solved only by a proper estimation of the degree of twasson of the mey grown. It is now generally conceded that cases showing involvement of glands, the bladder or the rectum and those in which the tumor is fixed by involvement of the parametrium are inoperable. On the other hand if the tumor is movable and there is no proble ment of the bladder rectum or glands the case together the case tegraded as operable even when the parametrum is slambly involved? It is not easi to metrum its slambly involved? It is not easi to

obtain a clear idea of the results of the radical operative treatment of the condition item a study of published reports

Weibel in 1013 reported on the results in a large series of Weitherins case. After a rice

us an increase in the operability. It would therefore seem that the mortality fellowing radic crit operation would be less it operations were strictly himself to early growths.

There are few series of ca c as large as those of Wertheim Jacobson in 1911 made in exten

per cent In a series of 211 cases of cervical carci noma reported by Doederlein the operability was 50 per cent the primary mortality 20 per cent

PROGRESS IN GINECOLOGI IN THE LAST TWENTY LEARS

BY JOHN R TRASER MD CM TACS MONTREAL

THE most con picuous accompli hment in

tion of the adhesions has been done whereas in others more radical procedures have been adopted even to the removal of pelvic organs or adjacent structures

It 1 to be expected that the portions of the

and speculation but it remained for Sampson clearly to determine and correlate the various

constitute the most common pelvic lesions found at operation in women between the ages of 30

plantations from ethici o 13 in their pelvic distribution the portion of intestine near the involved overy is most apt to be involved.

There has been much discus ion of the ongin of the elesions From re possible sources the suggestion comes that such tubules might an e as the result of abnormal development of the

elop erian th of

parently overwhelming evidence in support of

pulvic structures especially in the pouch of Douglas or on both ovaries and pelvic peritoneum and develops there into gland or tubules of endometrial typic

When the e-puthelful implants invade the owar as a reveilt of their reaction to mentrature of uperficial or deeply placed hematomate are formed. In time some of these structure rot time into the personnel see exiding their contents which contain elements applied of again forming cy to or secondary implants often with greater in its properties and ethibiting a wider

distributi n

These implantation adenomata of uterine or tubal (muellerian) type in the ovary may also be

while it is being freed the perforation naving called by the structure to which the cyst had adhered at that site such as the posterior uterne will the posterior layer of the broad ligament or the peritoneum of the side of the pely. All althe joins

than required origin at seems proposiould sometime appear at an earlier date as for

polypi or even a retroit places favor the backward flow of menstrual fluid o 7 per cent Bonney's mortality was 2 per cent and Goulhoud's 2 per cent. In a series of seventy two cases Tuffier did not have a single death The technique of hysterectomy has become so perfected that there is apt to be a tendency to resort to it too often in the treatment of fibroids thereby depriving the woman of the right of

quent occurrence of pregnancy in a fair number of Mayo's ca es amply justified the use of the more conservative procedure

That recurrences frequently follow the opera tion of myomectomy is not borne out by the after histories of these cases In only 5 per cent was it necessary to resort to a second operation and even in these the second operation was per formed at a considerably later date. In recent years radium has been used successfully to obvi ate a second operation. In the performance of myomectomy in cases of extensive homorrhage

cases and especially if the graft retains its vitality in the new environment autotransplantation of ovarian tissue as at present carried out retard and modifies the symptoms of the artificial meno pause which is usually precipitated by castration He emphasizes the fact that homotransplants and heterotransplants are failures As the same tech mique 1 used in these as in autotransplantations there appears to be a definite antagonism between the ti sues of different individual of the same

Occasional reports of successful homotrans plants and heterotransplants encourage the hope that in some way this antagonism of tissue will be ultimately overcome and more successful work will be done because of the greater preci sion that would be possible in the selection of more normal tissues

Following up the work of Stein and Stewart

p may of the ranopian tubes has

a competitor of surgery Radium is especially valuable in the large and important group of cases in which the patient's general condition forbids an operative procedure of any magnitude

Theilhaber Jaschke Bevan and others have re cently drawn attention to the importance of conservatism in the treatment of the retroflexed uterus Jaschke points out that the retroflered mobile uterus produces no characteristic symp toms and little or no distress a fact that has not been widely recognized

When symptoms referable to the uteru are pre ent they are mevitable signs of a compli citing condition which may be located anywhere in the lower abdomen. It is therefore evident that operations for the correction of retroflerion hould be undertaken only after a most careful investigation

The entire subject of ovarian transplantation has been revised and brought up to date in a very comprehen we manner ly Marim Particular reference 1 made to the exten we studie of Tuff er and Bell The of eration of homografting and heterografting have not given results of any

After very careful ifting of the evidence Martin concludes that in a certain number of

hitherto been possible only by direct evidence ob tained by laparotomy. In the establishment of

> t of a The actice

volu minous literature on the subject and the excel lent reports of von Graf Peterson Rongy and Rosenfeld Noval, and others

In the period under review many changes have

subjected to operation the preservation of one or both ovaries in hysterectomy for fibromyo mata or for other conditions and attempts at transplantation of the ovary

Maintenance of function is today the highest ideal of surgery and dominates all operative procedures on the pelvic organs

and the incidence of absolute cure 17 1 per cent In 393 cases reported by Holmeier the operability was 52 per cent the average mortanty 20 per cent and the incidence of absolute cure 14 per cent

In 1012 at a meeting of the American Gissecological Society the 83 mpo into on cancer hospitolity out fairly representative reports from the vanous American clinics. Cullen reported a five year care in 6 oper cent of his cases. Of thirty six platients terted by Clark six were free from recurrence after periods ranging from Jour and one half to 813 years.

More recently Giese he cited a series of 243 ca es of cervical careinoma with an operability of 70 per cent a primary mortality of 18 per cent and a five year cure in 35 per cent

> the and early

have caused such a revolution in theraps as the use of radium and the \tay in cancer of the certiff

ably the first to use railum in the treatment of uterine careinoma. Since their much work has been done along this line both in America and I urope and the results of Kelly Burnam Clark Bailey Z veidel Burnim and others are very en couranns.

Zweifel obtained a five year cure in 13.8 per

by radium are obtained at the expense of a very

technique a knowledge of the patient and general experience are essential to obtain a final result comparable with that of operation

To quote from a very recent report of Clark Out of a total of 144 cases only 15 per cent of which were operable 104 per cent safely passed the quanquenard test. During the last four or the years we have always irradiated under gas anasthesia which has rendered the treatment in the latter group more effective but this series has not yet pa sed the quanquennial test. How

ever a full trial has been made by u of bith the radical operation and the treatment with a moderate do e of irradiation (100 mgm of radium

able and has effected a cure in a small percentage of those otherwise doomed nevertheless it falls

much better result

toms that it use must be looked upon a one of

hemotrhages near the menopause their value is

In the treatment of fibromyona most author ues are agree I that the use of irradiation should be restricted to the uncomplicated symmet recally developed intramural growths not larger than a three or four months pregnancy partic ularly tho e occurring in women near the meno

produce a permanent amenormer. A proper diagnosis and the absence of complication es

1

The present day attitude of surgeon to y to the treatment of oterms fibromyomata is largely the result of th wide-pread use of radium and the \tay and the trend of opinion in favor of myomectomy e-pecially in the cales of young somen

It has been argued that myomectomy: more dangerou than hy terectomy but the mortality in Mayo's series of 909 ca.es was a little under

A GLANCE AT UROLOGY DURING THE PAST TWENTY YEARS

BY LOUIS F SCHMIDT M D FACS CHICAGO

an attempt to give a general retrospective survey of the progres of urology sance the beginning of the present century it might be well to remark at once that no arbitrary limits

science and stand out as landmarks orientating the direction in which progress 1 to be made

The most important event, in the history of modern urology was unquestionably the perfection of the cyst iscope by Nitze in 1879. It was a remarkable coincidence so far as wrology is concred that the cause of gonorhea, the neissenan diplococcus was discovered in the same year. And it was of great importance for urological theraputies, that both of these great discoveries were my

mas be summed up as returnments of diagnosis, and theral eutil due to a better understanding of the pathol gical processes in the genito-urnary tract multiposible ly endoscopy and a knowledge of the vagarie of the pathogenetic agents concurred

The urtility scope, a another instrument that he titled progres in urtilogy, the refinements made in the as well as in the cystoscope in the last twenty hee years having led to precion in inve tigation and the correct interpretation of the lathological pictures observed in the bladder and urtility.

vs(cm); di ea e on the genito-urinary tract and vice v r a lis ramifications are so diverse that in order t) make a correct diagnosis and institute b.

ranks of medical practitioners enabling the latter to trace many 55 fermic conditions to disturbances in the gentio unnary tract and to detect patho logical processes within the tract itself and refer them to the urlogist at an early period when they can be handled with a reasonable expectation of cure. Cystoscopic urelibroscopic blood smear and cultural examinations and functional tests of the Ld vice page 12 feb.

Statistics from the Wildbolz Clinic at Bern bear out the well known fact that early diagnosis and correct surgical treatment give results that are marvelous as compared with those formerly ob-

Factors in the progress of urology e pecially the domain of diagnosi which can justly be considered products of the past twenty years are ureteral catheterization the evaluation of kidney function including the blood chemistry pyelog

sable

Cathetenzation of the ureter in the male was not practical until the Albarran modification of the Artze cathetenzation cystoscope was introduced. Today the procedure is almost routine Besides permitting a correct diagnosis it has revolutionized the treatment of infected hydronephrosis and of certain types of pyelitis.

The value of kidney efficiency tests in con nection with operations especially nephrectomy but including all operations on the urinary tract

as the once test was devi ed by Achard and Castaigne in 1897 Rowntree and Geraghty de scribed the phenolsulphonephthalein to 1 in 1910

When for any reason the e tests cannot be apphed we can fail back upon the Ambard constant a numerical method of calculating the threshold of urea in the blood and urine as a criterion of retail efficiency. Thi method was elaborated in 1911 Among other procedures employed to deter

t 6 car pectar t ha permeated to the general

35

BIBLIOGRAPHY

B viv \ D Disasters fite operations f retrop ton
fith uterus S rg Gyn & Obst 925 I 39
Bo iv V R d labdom nal p t nfr arein ma

E

oz 1 ix 546 CR V R S C bon-d de gas inflit a d trm g es of terility 1 omen J Am M

1 92 kt 713 d t rm

Sc 19 1 48 Cirston A les lis of the trainment fg tl c \chi G m l 917 ex 435 Cnls \ l Co n t gynec l g) Bot M J

10 3 1 450 1 11 1 UP I det n frmyomectomy Pr Par p2 x x 168 méd

S MPS N J Λ 1 Am J OI t & C mec 0 45t Scenatz If Technique and st is the tree time t t h

m f N 10 that in animals certain streptococci form definite foci of infection have a predilection for localiza tion in the urinary tract and are possibly im portant factors in urinary lithiasi and pyelo nephritis In this respect also the findings of Rossing are very interesting During the past twenty nine years Rovsing has treated 716 cases of kidney and ureteral calcult Of the 589 of these in which a bacteriological examination was made only 276 were sterile the others showed one or more types of organi ms

Recent experimental work by David and McGill has proved that bacteria can pass from the normal bowel to the mesenteric gland, and reach the un nary tract from these glands probably through the ble od stream. There appears to be no doubt that organi ms can pass to the urinary tract from the

Space will permit only a brief reference to some of the numerous improvements in the past twenty

Randall and Lowsley's autopsical investiga tions on median bars and other bladder neck ob structions have been of great value in calling at tention to the frequency and importance of these conditions Equally important were the investiga tions of Tundler and Zuckerkandl on hypertrophy of the glands of Albarran at the vesical neck in as ociati n with hypertrophy of the prostate The anatomical inve tigations of Lowsley have taught us much regarding the development of

u aduct turrors with the hi h frequency current through the cystoscope especially with the tech f R

mem in 1910 Beer introduced the method of destroying tumors by high frequency currents

ble mahgnant neoplasms of the bladder and pros tate Much has been done since then and the method as developed today is indi pensable in the treatment of malignant neoplasms

Fadure to mention the use of radium in the destruction of malignant tumors would certainly be an error While it must be stated that radium deep \ ray therapy and surgical dia thermy have not proved satisfactory in every

them As yet the dosage the method of applica tion and other technical details have not been placed on a sufficiently accurate basis to indicate definitely which method will bring about the best results but when a radical operation is impossible these methods should be considered Pre operative and postoperative irradiations have undoubtedly been of great aid in obtaining satis factory end results

In the treatment of many diseases including gonorrhecal urethritis and complications in the male as well as in the female medical diathermy has frequently given apparently satisfactory resuite

Improved operative techniques in connection with the treatment of bladder incontinence in

Ruebsamen's method of implanting the uterine cervix in the anterior fossa of the levator Pousson and Marion introduced the surgical treatment of nephritis. In regard to nephreciomy there can be

and remote results of the operation have been greatly improved Kuemmel reported that the

emercues our also to technical improvement in the operative procedures. In the last ten years the excellent results obtained from early nephrectomy in cases of renal tuberculosis have led to the

mine renal function is the concentration and dilution test of Mosenthal The blood chemistry technique developed by Folin and Dennis in the past decade has been of great value in investi gations of the amounts of various substances in the blood in both health and disease. In patho logical conditions a definite knowledge of these amounts allows a more correct prognosis and determines whether operative procedures may be considered Blood cryoscopy recommended es pecially by knemmel in the early part of this century has fallen into disuse but in the writer s opinion it is a valuable calify carried out and quick method by which to reach definite con clusion regarding the total retention of products in the blood and the state of renal function

Poentgranlog all exploration of the urnary bladder after it has been filled with a substance opaque to the \(\frac{1}{2}\) rays is another development of \(\frac{1}{2}\).

satisfactory pyelograms Since then other agents have been recommended In 1918 Cameron su gested the use of sodium sodice and Weld the u e of sodium bromde These have given universal satisfaction and usually have been without detimental effects

Pyclography is of di inict value in clinching the diagnosis of certain pathological proceses such as hydronephrosis renal tumors and

palpated or cause cardinal chincal symptoms

isfactory. It will reveal the number size and location of bladder diverticula and when the pre ence of a large tumor or when some other

the condition in 1014 was on 1 3 g 1 that time the condition was usually discovered

accepted

The use of spinal paravertebral sacral and other types of aniesthesia must be regarded as a distinct advance in urologi al surgery. The question of aniesthe ia 1 perhaps of more importance from the point of view of the gentiournary tract than from that of other anatomical

the most definite and useful procedure in the

sacral and other types of regional anaesthe in have been perfected durin, the past ten year but spinal anaesthe in has been used for more than twent) years

Investigation of the bacterial origin of many disea es of the genito-urnary tract has received a decided impetus during the past twenty five ears Sure 1893 Albarran has shown the

i

duction of a ureteral catheter containing a meet wire. The original monograph and its illustrations demonstrate the value of this procedure especially

Rosenow and Meass 1 will a

TWENTY YEARS PROGRESS IN CERTAIN PHASES OF ORTHOPEDIC SURGERY

By PHHIP LPWIN AD FACS CHICAGO Assit F fesor 10 th point Sur y N to t V y $\frac{M}{2}$ then $\frac{1}{2}$ Such the pair $\frac{1}{2}$ C to ty $\frac{11}{2}$ pts $\frac{1}{2}$ just At each $\frac{1}{2}$ Other point $\frac{1}{2}$ Such the point $\frac{1}{2}$

ORTHOPEDIC surgers has made very defimite progress during the past wently years
To a considerable degree this has been due
to the experiences of the world war expecially
in the treatment of fractures near or moto points
and in the surgery of osteomyethus and of war
wound likely to result in deformatics and dis
abilities. The treatment of fractures has been
every well established and splants and splanting
have been sumplified perfected and standardized.
Complete functional restoration in the shortest
Tossible time has become the slogan. The importance of early treatment has been emphasized.
The education of the student and general proctituener has improved. There is les fear of

of importance in a fairly large number of conditions

In cases of congenital defects the trend has

much discussion concerning the relative merits of

Two very important advances in the treatment of tuberculous disease of bones and joint are heliotherapy and operative immobilization of the

from special lamps is used as a substitute for the rays of the sun

me the

ध्या स्थ

laminæ and pedieles and the cartilage is removed

of topical surjects has found its proper place in the medical curriculum and in ho pital work. The war helped materialls in defining also position both as a pecialty and as an integral part of medicine and surgers in general. Among the newer diagnostic and is the Potter

o i revised the moving

legical histological and bacteriological studies have become more valuable but tuberculin tests have lost favor

and u e

table

Clinic Postoperative data were obtained in 621 of 863 cases Of the 611 patients 58 per cent were completely cured for an average of four year and only to per cent still complain of some umary trouble The operative mortality was 2 per

fn n II

n h

ly fould and by Schott from both the batho

important advances in the domain of genitourmary surgery

Recently Liebig has reported important de creases in the mortality of all types of prostated tomy The results are summarized in the following

TYPES OF PROSTATECTOMY

Type I operatio N mbe De ha

M tal v

Per ce

Personal m val (tai tes f ur es) ť Tucheo til (tatastacs is or 75 a g en)

S prapuble of the 3

In 1906 Che as a d ribed b ubperitonesal enlarged radical castration for cancer of the testicle which has resulted in a more or less

Crowell recently reported a case in which cystin stones in both kidneys became completely di solved after continued alkalization treatment and relyic hyage

Perineal prostatectomy was first described by Alkarran in 1901 and elaborated by Young in

of case of teratoma testis which have been re ported by Himman and as ociates a rad cal opera tion re ulted in a cure in 35 per cent as compared with a cure in only 13 per cent following the previous sumple ca tration method Other im

prostatectomy toungs illu to cancer of the prostate represents one of the most cation. Their principle, application and man

agement are on a sound basis

In \(\hat{k}_0 \) and \(\hat{k}_0 \) trivities the important
contributions were (j) the immediate immobilization of liractures summed up nit he slogan. Since
ery where they lie the treatment of shock and
the careful tran portation of the injured (a)
early reductive and man stenance of reduction and
(j) as early ma sage and movements of the all

16 to 1 1 35 55%.

The treatment of compound fractures consisted 5 is t (4 t tonal of all contaminated to ward offection 5 in The best re ults fol lowed the best surgical operation. When Dakin Carrier treatment supplemented a good operation excellent results were obtained. The weo of antitations crum became toutine in compound

fractures

The treatment of osteomyeliti consisted of a thorough enselling, and curefting of the bone and thorough drainage. This followed by Dakin Carre treatment was routine.

iosi is complete and extension is best if the ariky loss, is incomplete. The arike should be fixed at a right angle is a be a 1-text on The hip hould be flexed if the patient's occupation requires sixting but if prolonged standing is neceessay discount not desirable.

In cases of fracture the improved fluoros ope his proved invaluable in the diagnosis and should be u ed in reduction whenever possible—in the treatment the various i proof on had saspen ion—Balkan frame Rainhow frame etc—

Sili it tory results of any treatment

Many surge is have abandoned 1 in trution for keletal traction. Among the various devices used to obtain keletal traction are the Ran ob if $B \to P$

In esteomyelitis occurring in civil life a Jvances have been made in the prophylactic or early

treatment on the basis of Starr = method of drill ing several holes in the diaphysis close to the emphysical line to e-tablish drainage and prevent extension of the process to the maft

Tach reconstruction surgery of bone the most important condition i pseudarthroni. In the treatment of pseudarthrons motable advance have been due to the work of Line Delagendre and Allive. Line propose of the application of metal plates and screws by steptic no-hand touch technique. In other methods use is made of beel bone pegs (Ryerson) plates and screws wory pegs (Blagnuson) plate and crew solded pegs Parham Martin bands and various

genetic properties but 1 of great value as an internal flint. A combination of the two is ideal O teogenesis has been recently studied more carefully by mans of roentgenograms and mi

pedic surgeon has come to occupy a definite place both as prof hybrit and a cerrectic e treatment of conditions involving the hip lines ankle fooshoulder (thow with hand and lark

Internal derangements of the lumbo-sacro mac region are now receiving attention. In properly elected cases ankylosing operations in thi

and the substitution of supports made of resilient material special everties massige contrast datas and the wearing of modified shoes. For

arthurus is another condition that has been studied intensively during the past two decades

v 116 those thoroughly under

INTERNATIONAL ABSTRACT OF SURGERY 460 iliac articulation hip and ankle may be fused the second sacral roots were divided. Recently more or less successfully de was his door I he In the treatment of infantile paralysis great progress has been made from the orthopedic others ch n own nded repeated lumbar section. With the belief that the increased plastic in the experimental stage 11 operation. These operations may be performed immediately or after corrective treatment or of er as bammock placed in the supine position and flexion of the m de m me uld pine was obtained by su pending his head and preser legs Lateral pressure bands were then used over ion and and de the convext election al nerve in ankilosis of various joints act; related to bone and joint surgery Recently Loyett and Brewster Ha a dec ded advance in the ١ ed гy ert he

th

aps

ats

ılı

hand As a re ult of the excellent work of the

worthy and Moorhead motor driven bone saws laminectomy instruments and Putti arthroplasty metruments

Ormopetic apparatus nas peen impined Chief among the various types of orthopedic or

Special orthopedic hospitals have increased in numbers during the past twenty years notably those sponsored or supported by the Shriners or Rotarians In these as in the orthopedic de partments of the general hospitals interns and nurses receive excellent training in orthopedic

Plaster of Paris technique has advanced con siderably The general practitioner who has served an internship has learned the principles

pieces of apparatus include special traction de

ing the past two decades

recumbent

Braces are being made of lighter material than twenty years ago Materials permeable by the roentgen ray are being employed with increasing frequency Aluminum and its alloys are gaining in favor Celluloid has its advocates especially for

spine hip knee and foot braces Various important instruments recently de vi ed include the Albee Geiger Hoglund Lang

Special orthopedic associations are found in many countries and many sections of a country and several cities have their own orthopedic societies

In conclusion it should be stated that while orthopedic surgery is a definite specialty its coordination and interrelationship with medicine and surgery in general and with special branches such as pediatrics and neurology is of great im portance and of mutual value

stood and the treatment improved. Poenney Dasis and Billings emphasis tood infections as the causative factors. In Premotion so opinion the carbohydrate metaboli in us of great improvations. Barrows and Ely believe that Fording the solution of the soluti

I exently excellent papers by Swett Campbell Dickson and Steindler have appeared on the operation of syn ecctomy of the knee joint

Arthroplasty or the mobilization of ankylosed joints is a product of the last twenty years. As early as 1830 Barton performed resection of joints to produce motion. In 1860 Verneuil interposed muscle and fascia in the treatment of temporoman dibular ankylosi. but it was not until the work.

used In 1909 Baer reported four unsuccessful cases of arthropfasty in which he used cargie membrane Subsequently he u ed chromaged pg a bladder with very good results Others who have contributed to the improvement of arthroplasty are Sir Robert Jones Mac busland Putta and Ryer on Better results are obtained in the temporomandibular elbow and wrist joints than in the hip of hee

Internal derangements of the knee have re ceived considerable attention during the past twenty years especially by Sir Robert Jones

ommended by those who believe that in many cases exploration of the entire knee joint i indicated for lesions of structures other than the

b - b - b - b - db Kreuscner

ι

Syphilis of the bones and joints has been studied by Roberts and Frauenthal These writers be here its frequency is underestimated

Nutritional disturbances of bones and 1 into have received numerous excellent contributions during the past twenty years notably those of Hess Findlay McCollium Shipley and Phemister The factors in the tetology are understood more thoroughly and the treatment has been secully improved.

Direct sunlight and its variou substitutes vitanines cod liver oil pho phoru and food factors have been definitely e tablished in the treat ment. The orthopedic prevention or correction of deformatic has been more carefully considered and open operation is resorted to more frequently than closed manipulation fracture etc.

similar condition in the upper epiphysi of the tibia was described by O good and Schlatter another in the tarsal scaphoid by Koehler an other in the metatarsophalangeal region by Fra

anatigous conditi it calp the lower epiphysis of the tibia (Stern) Epiphyseal pathology occurring in children with endocrine

Vascuitt u stulo

been studied very carefully by Buerger Lenche Brooks and others Lenche propo ed the operation of penarterial sympathectomy for certain blood ves el conditions such as endarterials of terms. Volkmann sischamic pail y has been found or cases rot treated by cast or sphins a di overy proving that in some cases there is an in loned Numerous

cavity for roentgenodiagnostic purposes was first used in cadavers by Weber (41) in 1913 but Lorey (22) Meyer Betz (24) Rautenberg (30)

the brain with air and Jacobeaus (17) in 1921

mechanical precision

itself of considerable value

nature of simplification and adaptation of the older methods to meet special requirements in the main most of them are most of the principles put forth by Mackenase Davison (23) and the special process of the spec

A procedure which has probably extended the diagnostic usefulness of the roentgen ray within the last twenty years more than any other is the use of contrast materials to render visible parts which are ordinarily radiolucent. The possibili ties which this held forth were recognized early but it was not until after the advent of rapid roentgenography that much of practical value was accomplished with it Metal sounds had been passed into the paranasal sinuses and shown in situ Metal tipped bougies or tubes filled with small shot mercury or bismuth suspensions had been passed into the resophagus to demonstrate obstructive lesions The lower border of the stomach had been outlined with the aid of a wire filled tube. Were filled or opaque ureteral cathe ters were u ed not only to indicate the course of the ureters but al o to help differentiate extra ureteral shadows from urmary calculi

Air or gas distention was also used extensively. Alternitys were made to visualize parts of the gastro-intestinal tract in this manner but little of real value was ascertained thereby. In 1905 Robinson and Werndorff (32) insufflated joints and soft tissues with ovygen. Wittek (42) in 1903 used art and Burkhardt and Polano (7) in 1903 used art and Burkhardt and Polano (7) in 1907 used ovygen to distend the urmany bladder. Later von Lichtenberg and Dietlen (40) used ovygen in the pelvis of the kidney in a smillar manner. Air or other gas in the pertitioneal smillar manner. Air or other gas in the pertitioneal

berg (39) in 1905 and 1906. At first collargol was employed later argy rol silver nodicle and solutions of thorsint and sodium and potassium moddles and bromides. Collargol was used by Gottlieb (15) to show the lumen of the uterus and tubes. Picker (28) and Belfield (4) used it to out his the seminal ve icles. Brooks (5) injected sodium nodicle solution into some of the distal artenes in living individuals and demonstrated their course. Scard and Fore tier (35) used lipio doll for the daugnoss of le tons of the central

nervous system The value of bismuth suspensions in gastro intestinal examinations was recognized as early as 1806 Cannon (g) used them in animal experi ments in 1902 Numerous workers had employed them in human beings but it was not until after Rieder's (31) publication of his method in 1904 that they came into general use and yielded valuable results. Bismuth was later replaced in large part by other contrast materials especially barium sulphate Bismuth suspensions had been used also to outline the urmary bladder by Wulff (43) in 1904 In 1908 Beck (3) injected sinuses and fistulous tracts with a paste containing it to show their distribution and origin Szily (38) and later Doub and Carter (12) used it in the lachrymal sac and duct for diagnostic purposes It has been employed also to map out the various pneumatic sinuses of the head mainly in experi

mental studies on cadavers
In all of the procedures mentioned the use of the
contrast material is more or less of a direct me

venous injection of tetrabromphenolphthalein

ADVANCES IN ROENTGENOLOGY DURING THE LAST TWENTY YEARS BY ADOLPH HARTUNG M.D. CHIC GO.

THE term roentg nology as a synonym for the scientific knowledge of the \ or roentgen rays originated just twenty years ago and scientific application of it commenced at about the same time. Before that much of the

currents of desired voltage and amperage was accomplished

The next great improvement is point of time was the invention of the electron tube. The original type of Crook's tube used by Roentren

nical part of roentgenology and made possible

tract. It had been u ed extensively in chest ex aminations especially in connection with the heart Its potential value in many other con ditions was foreseen but not realized practically until later. Its use had amplified and in ome in

> eliminating the lines by using a moving grid of special construction. With his device even the thickest parts may be roentgenographed satis factorily and produce sharp image with much contrast

Coincident with these major improvements

of acce sory agents to render radiofucent parts visible and the development of greater diagno tic kill In therapy more exact knowledge of the biological action of the ray the quantity and

termined

the

troubles inherent in the older types of machines were climinated and the production of suitable determinin penetration and of regulating and

t t... -

is pathological even when stones are not to be found. They and other ob ervers described other igns such as adhesions functional variations of the stomach and duodenium and gall bladder eats which could be shown by the roonigen ray the method of Grabam and Cole for visualizing the gall bladder was a dt intic advance and prom te smuch in diagno is

The u e of pneumopentoneum enlarged the field of rentigen diagnost very materially esspecially in connection with abdominal tumors and addiesions. Rubin (3,4) u e it it to show the patiency of the fallopian tube by myecung air through the uteru. The method proved of considerable value to gynecology about rendering the pelty organs visible.

In obstetrics attempts to use the roentgen ray to show the fetus in the uterus were made re

four and one half months or even earher. In the later stages the position of the fetus may be clearly Jemonstrate! The presence of event unterne preparancy anomalies and mon troottes uterne preparancy anomalies and mon troottes the stage of the stage o

In symmati ms f the urinary trace roent gen logs hi plaved in important r le since its di covers. Sephrilithia i wi one of the first midit in mis lich the rientgen ray showed its value mild minal le tons. Se carly as 100a.

a and eminal seases by pagine clution distention of the I lader and kidney pelvis with aian I the injection of air around the kidney all served to increase the application of the roentigen ray to uring \$1\$ lut by fair the mist important advance was the use first topical by urcterograth \$n_1 | n_2 | 1 m.

associated with anomalies and pathological con-

No attempt will be made to give a detailed recount of the data nec made in roentgen therapy in the lat twenty years as this would nece strict more respect than is available. The volumnois the tractical test to the interest in the subject and the importance that has been attached to it As has been the case after the discover of ever new agent and e pecually because of its myster on nature and its powerful action upon tissues the roentgen riv was believed to posse a infinite possibilities and was used in every conceivable.

upon empiricism and the successful use of the riswas largely a matter of the per oral equation. Even in the croses in which good re-ults had been obtained with it especially in malignancy of ficient time had not elapsed for a proper evaluation of its effectivenes.

As previously mentioned advances were to be

construction of machines of higher and higher voltages unto Inow some of them are capable of delivering as much as 160 000 volts. Simultaneously, tubes for carrying the e high potential currents were des doped. Some of the drawback connected with long continued operation were eliminated by vacuum regulating, devices water cooling oil timier volt and other method and tules are now available which will operate on extremely high voltages for long period continuous in ung comparatively large, amounts of

The harmful effect of the ray note I after prolonged expecture, soon led to the realization of the lact that protective measures were needed for I oth the patient and the perator. The u e of protective tube holders or shield, and I filters was

extreme penetration came into u e stronger filters were nee k.1 and e.per an l. zine were used. These filters in a blut in to their protec title value af o erred another jurp) e, they cut off certain undestrable ray an l ma lef r a more hom geneous arraduat in which a se extremely destrable.

In diagnosis the advance has been gradual keeping pice with the advance in equitment and technique and being dependent upon accumulated the marked contra t in density of the various organs and the easy penetrabulty of the chest Fairly good roentgenograms made in less than a econd had been produced as early as 1800 Prog

recent sears halt m d d deed en

the method proved of increasing value for the recognition of tumors and ancuri in The substernal goster with distortion of the truckers hadow and the persistent or hypertrophied thymus are easis demonstralle th reby Or thodiagraphic methods for heart examinations introduced by Moritz (5) in 1900 were supple mented and in part superseded by teleroent genographs as recommended by Kochler (10) in 1008 Advances have been made in the diag no : of fluid accumulations in the pericardial

method is under can ideration as a therapewir. t ii H your th measure

In regard to gastro intestinal lesions a new era in diagno i developed after Pieder's publication

vestigation and the results optained with the amply justified its use in selected cases Mn t of the information furnished by roent

ac ish

made the roentgen examination one or tile i Նու par a d a gracerante cont diagno is conceptions of anatymy and ify it ogs were postero-anterior expo ures upon which must re

tarious sing es as well as i pathological proc Most of the e in connection with them

oblique method for mustout anun us pot f they Dental coentgenography has pre-

patholo real functional acti mes suc and tases were demonstrable objectively. The presenc of adhesions and such conditions a herma eventration of the diaphragm and subphreny abs e a could be ascertained. The action of drigs in the colon was all o studied by this

Examination of the gill bladder yielded but Beck (2) ng of gall negraphi trats n of

some ab

importance Intrathoracic conditions lend them tives par neularly well to roenteen examination becaute it

7 BURKHARDTR dPOLANO Muenche med Wchnsch

47I

1907 ltv 20

asm

The hopes that the roentgen ray would prove specific for cancer and other mabgnancies has not been realized but its great value in this field has become generally recognized The accumulated knowledge of the last twenty years has served to fix its applicability in certain deep seated as well as superficial lesions. Its beneficial effect on menstrual disturbances associated with the meno pause and uterine fibromy omata and upon cancer of the uterus and cervix is probably the accomplishment which tand out most prominently during this period. Prophylactic pre-operative and postoperative irradiation from which much was anticipated has not entirely fulfilled expecta

tions and is still a matter of controversy The progress in roentgenology to date gives promi e of even greater alvances in the future In diagno is some of the methods used will un doubtedly be extended and others of equal or greater value will be devised. In the bne of equipment improvement will probably come in the direction of simplification. In therapy more knowledge is needed of the ultimate action of the ray and of the kind of ray best suited to meet particular ends. Accurate measuring devices of simpler construction and easier application are urgently needed The matter of dosage requires further refinement. In both diagnosis and therapy continued observation and experience will un doubtedly extend the field of application of the roentgen ray

```
BIBI IOGR APHA
ALRE 5 SCH
                  ERG Fo tsch
                                       d G b d Roc t
g I ilin 9 3 3 Bc C N kM J 900 I
Bc F G J Am M A 90 B rtt D J Am M A 93 I
                                 008 1 868
                               9 3 lx 800 Ibd to 1
          J hm M A 0 4 1 6 h di d d 1 ch Roe 1g Ges Bsch
BLCKY
```

9 3

```
CALDWELL Am C Roentge of 1906 1 28
                                        Pre s
14
     9 S P 140
15 GOTTLIEB Am ] R entg nol 1016 1 257
   GRAHAM and COLF J Am M Ass 1924 Lxx.
   JACOBAELS Act md Sad to 1 1 lv 55
   KOEHLER Munch md Wh sch 1908 lv
           De t h m d Wchns hr 1008 xx v
   KOEI LE
   LANGE Am O Roentge of
                           gog 1 I
   LEONARD To Am Roe tg Ray Soc gos p 56
   LOREY Vethan Il d deutsch R tg Ge ell ch
   MACKENZIE DAVI N A h Roente Ray
                                    808 11 64
   MEYER BETZ Mu ch md Wch ch
   MORIEZ Mue che m d Wch chr
   O BOR E SUTHERLAND SCHOOL and ROWNTREE J Am M A 9 3 lave 368
   PEARLER d SCHAMBERG J Am M As 1906 1 1
0
32
33
   Run J Im M 1
34
                         0
                             1 xv 661
     Rot ig of 192
   SICARD
          d F arati a Rev
       64
37
38
39
40
41
      9.3
            453
   WITTER I stock d G b d Roe tg
                                      trabl n
             tschr a d Geb d Ro tg
                                      trahl n
```

As the number of case reports increased and results became better known efforts were made to attain greater uniformity to serie as a basis of comparison. Dosages were computed on a physical or biological basis. Grad ally cro-fixe methods of application for deep seated lesions.

Bauer qualimeter and pack up met u o the equivalent of a parallel spark gap between 1 (% T

natural crystals and the possibility of producing a spectrum of them various pectroscopes were devi ed by which the quality could be accurately nord were used. However as some of the less destrable effects became evident a reaction set in and today there is a tendency to go back to le's intensive methods of treatment. The steady

determined

Mea ures of quantity were even less satisfactory and more necessary than those of quality directly

Sub indary mates thod

such as the Holzknecht Sabouraud and hours and hiemboock methods were largely used in 1905 and were fairly reliable when tays of low penetra

have been found to vary from stimulation or modification of function with very mail dose inhibition of growth ex function or interference

ures ava au Technique has undergone a remarkable change Action is greatest at the time of mitotic activity age temperature bood supply tructure and other factors have been shown to have a 19 fluence on sensitivity. The effect of radiation upon the intestinal r cosa has be a studied with a time to obtaining data relative to radi iton ick.

requirements became more accurate Up to apout

marked are in

was and he w

•

testa c

ray

White L E Bi adness from the T eth Tonsils and Acc ss ry Sinuse B 1 II & S J 925 exc 64

The po ib lity of blindne's from lesions of the teeth tonsil and accessory sinuses has received a get d al of attention. In the last the live years White has reported lifty nine rases.

The mot recent addance in the study of such conditions has re ulted from measurement of the optir canal. The author concludes that to prevent atrophy in cases of nerve involvement in which the canals are 4 mm in diameter or less and other I finite foot cannot be found the potentor sunuses mu the ventilated. Visicit W sorn W D

Friedenwald 11 and Friedenwald J S Epithelial Dyst phy of th Co nea B 1 J Ophth 925

The condition described by Tuchs as epithelial dystophy I the cornea occurs in etherty p issons and is slowly progres ive. No inflammatory symptoms accompany the progress of the le ion. There is all fluse opacity of the cornea v lund is mo t intense.

ad titton

In ccenty are the comeal m cro cope has shown a different peture smll dew drop like elevations be ngol erve ion the pot nor surface of the corner. Thes 1 put tun lert the cael epithelium. When they a cf will number they are located only in the chital; I of the corner but at times they are catter 1 w r alm the entire posturor su face

echiz etc hut Graves in 1 is that unle sone see the normal eye very frequently it 1 impossible to judge what is pathological. He mentions the import nee of diagnosing not only the condition but all 0 the cause uch as trauma inflammation and turn is Thomas D. Mark. M.D.

Harkness G F Inc pient Cataract J Io St t

considered in drawing conclusion, concerning the non-operative treatment of cataract (r) the type (2) the stage of development and interference with vision (3) associated cause such as diabetes fical infection and previous attacks of up tits and (4) resolution (activity of conceptions).

sy ontaneous clearing of opacities without treatment.
Until cases can be cla safed on the basi of these
considerations it ill be impossible to draw satis
factory

treatme used lac

remaine three alter th

tests
Of the forty teachers who were aske! for their

opinion regarding me heal treatment tventy re ported that it is without benefit telve that it gives definite benefit to that its effect is dubtful and nine that it is possibly benefit to the treatment VR 1 Wescorr M.D.

VIS I WESCOTT VID

G 2 es B Some P actical Notes on Slit Lamp Apparatus A J Op/# 9 5 3 5

Graves gives the folling list as the minimum outfit for said factory slit himp work in glass top table a next all tamp a Koeppe daphing minimum a koeppe darhomat of forung le a Koeppe morto a en one oppe with part of ovul mounted on a implitute of the factor of the fa

Gra B Th Outst nd ng Beam of the Aqueous
Fluid Im J Oplik 9 5 3 8

G a tat the the agg u not optically

Ga lat the the agu u not optically compty a normally two bilty set of the compty and normally two bilty set of the latter of the

lath log

tenll s

-- C 111

llad n II C The D ciopme tof the Optic N rve nd L min C ibr tm J Opt 1 9 5 3

u in e se in the ze of the carif

ABSTRACTS OF CURRENT LITERATURE SURGERY OF THE HEAD AND NECK

HEAD

Elsbe g C A Cranlotomy unde Local Arres th sha f Sue gas le to 3

During the past six years the author has per f rmc 1 239 mai era iotomie in sixty two of De Bl sko les L. On R suits of T ming f the

EYE. Tarsus Inh Ophih 925 1 35 In cicatricial entropion the tatsu a turned in ward with a scarl ne on the conjunctiva in the sub-

cranial prisiure hich increases the amount of

are subjected to an apporators operation under

a I the latter removed

surplied by the upra orbital and upratrochlear

estincofpan r tir ensitin and the mem I rane will ! four I to be in mit sen mitter h w for it that fr in the cross to rattism impulat 1 The uth he fund mall a ca f fura at the

cal rlexus

cent

VOIG L'VESC TY ILLI

1 h Ochth ast 1 Wh nihe luri ha been to chi the ours of a cranitions unit il nesth is the mmbrine

Verloeff F H Th P thog nes of Glaucoma

base f the int r or ln 11 pro n anothe near th frm novale this he like my be en the e liclith nat on Inth lit the prin co placel (may) du t a mat to a sp tofth

> idiration angle i obstruct d and in m or saure a mereased The modernal symptoms ni t nporary e

> > VIRGAL ESC I

Group 3 Lessons resembling those of Group 1 which do not disappear under treatment or when

In certain cases in which the tumors are very extensive treatment may be detrimental rather than beneficial therefore these should be carefully differentiated. If treatment is given it should be

warts

Croup 5 Lesions which are distinctly cancers
Lesions of Groups 3 4 and 5 should be sub
jected to immediate local exists on under procuine
anxisthesia. If the microscope shows carcinoma in
the exit ed tissue the glands of the neck should be
removed.

moved
1 1 t t

In lessons of Group 2 no treatment is of any value unless the cause (the use of tobacco) is chim insted and if this is done other treatment is un necessary.

In lesions of Group 3 any treatment that does not permit a microscopic study will often lead to the

ment Complete emoval of the submanillary and submental glands is essential. There is apparently no object on to reentgen or radium irradiation be fore or after the removal of the glands but there seems to be no question that removal of the glands is the important procedure. In cases in which the microscope fails to show metastas postoperative irradiation is unn cessary.

MATTREW \ FEDERSPIEL, M D

PHARYNX

New C B Th Treatment of M lignant Tu mo s of tl Pharyn and Nasopharynx S z Gy c Ob 1 9 5 xl 77

onh re

t tu is of the

should be used only if the growths are inoperable Most of the patients whose cases are reported by New received marked symptomatic rehef. The lives of some of them were prolonged for months or years Others were apparently cured

NECK

Ball J 5 g 1925 x1 579

ments

1 The thy roglossal remnants above the hyord are

others

3 The complete infrahyoid tract extend from the hyoid (usually folded up behind it from below) to the thytoid gland either centrally or on one aide
4 The incomplete tract has potentially the same line. It is the tract broken up its parts remain in situ.

5 Any of these remnants may take on further development especially perhaps if there is a con

al o to t ke on further des Topment Certain con

at HA & 11HS view would not receive extensive

t | statast on of ep thel mata in determining the treatment of arios types of malignancy. The alue of treatment of these various groups of cases is shown by tables. Such tumors are usu lly of a very high grade of malignancy either lympho ar comata or ep theliomata. (rade 3 or 4

of over

1

In the anterior end of the optic nerve the ghal

The majo stv of the confi

found in the nerve previous to this stage is that

TABLE HI -TREATMENT AS INDICATED BY

Acc De service of the
Zinc ionization frequently cur a chron c pto sh wa

JAM L BR RLL M D

h at cann b

or partial or

HTHOM

Bloodgood J C Excision of a V Shaped Piece f the Lower Lip Versus Roente n Rayo Radium

Tresten at R d logy 1925 t 60

3 t 41 h m

in the second

EAR

Friel A.R. St. ti tica of Results of Zi c Ionis then in Chronic Otorthon in O er 600 Cases. I Ro See M.d. Lo.d. 1925. v. S. t. Ot.). 4

the zinc

scho I chilini 1

TABLE 1 -THE RESULTS OF IONIZATION IN THE TREATMENT OF SUPPURATING LARS

Typica on time to the control of the

TABLE II ~ ANALYSIS OF THE CURP CASES
OF TYMPANIC SEPSIS

use of tob cco is stopp d

center of the bone is resected. Then without any

of the tract If two intersecting lines are drawn one horizontal and one perpendicular to the upper horder of the body of the hyoid the foramen cæcum will he

to draw the gemohyoglossi muscles together. The

CLAYTON F ANDREWS M D

Moore If F The Basal Metabolic Rate Its De termin tion and Interpretation L et 925

CCAIT G By basal metabolism or the basal metabolic rate is meant the minimal heat production of an organism measured from twelve to eighteen hours after the ingestion of food (post absorption state) and with the organism at complete muscular rest and comfortably warm. The minimal heat production may be measured directly by means of a colori

As a rule the metabolic rate is computed in

Bared Th e 1 6

m te fut

finding of increased metabolic rate is strong pre

u that exte t then the metabolism test is det lu (t

ŧ

thyroxin formed is chemically different in a slight way from normal thyroxin

5 Adequate intravenous administration of thy roxin to thyroidless patients who invariably have a low basal metabolic rate alway restores the basal metabolic rate to normal

6 The average daily exhaustion of thiroxin by

mgm of active thy roxin must be present in the body to maintain the hasal metabolic rate at the normal

thyroxin

1 1 4

Thus it is seen that the determination of the met abolic rate may be of significance in the study of the discases of the thyroid gland. Other diseases in which the rate is increased are severe anamias and

Means and Burgess make the following state ments regarding the significance of the metabolic rate in the diagnosis of thyroid disease ա հ

From his ow nov

a 11 e1abol sm above normal 4 Th st tu of h h n

Bratustie ne rls the chin al operative and miero orac fudinas in eles i ca sol ce ts and

the en e d cartilage in seven case and in the upra sternal notch to four case

In contralistinction to branchial crass which

Pathological traces a

E LT EIST II C to confu ion t but cally old I mith giant matet on the ms the nt p ctally if these uppurate or become tube region

Seque testion I rmo is in the maline of the t the afrakso fluts: This is excel the site of twentieth year

In explaining the sulka as pearance of these

I fesent d

. א מונ ח

La or recurrence by the formation I seems

aft r oper to a might is sent reurred e to at factorici ful a tion in a might inh big the Aros th of c II

The lackson is not muy a often mar a el lucian the first for the man 1 m too tof testing frinds in the sent is orthore)

HALLEYS 19dy a bay I on the re cl of 17 e ser coll ted from the Lordon II fittle Improgf that and natural not common to women than ama s nev fix of the s a steins found in the 1 toet

it being Of the NO RATO

े कि 1

m I I i me

dun to th more concludes that the region 1 1 1 m v up to d adt ba nly the to go I fully pr trud I wh ten an pdrmil)tt t fheta go ago en rult n legt centulat

20 he is a p gativ re ult | o mportance he vs ní: tts a h the 11418 31 Litt

femin a n mithe as ath two of the nouth protriing by theth hi in it a ir n vetse a n at abe if the ho ingben iset dista a th bon The tr the e the the I in the live cases be eath the the at at est am add to entered refer adt I med hearling thirly n a on the it i art I ge med at vice my ve parated and i in of the or semb at in in ats three e ses at the level of

e

lodine causes a morphological change in the gland colloid replacing the area of hyperplasia MERLE R HOON M D

Frager F R Iodine in Exophthalmic Gotter

B t M J 1025 1 1

doses and long continued smaller doses might prove

toxic The author concludes that although the improve ment following todine treatment does not persist it

renders surgical treatment safer and simpler WILLIAM I PICKETT M D

Thomson Sir St C and Howarth W A Case Illustrating the Advantage of Tracheotomy as a Curati e Measure for Tuberculosis of the Laryn in a Medical Man Aged 70 Poc Roy S Med Lo d 1925 11 Sect Laryngol 8

The authors reported that in a case of tuberculosis of the larynx in a man 70 years of age the patient gained weight his voice returned to normal and his respiration became free after a tracheotomy tube had

tracheotomy tube is an irritant and very greatly

moval of a portion of the thyroid gland. In five cases of the series no improvement was noted and in two harmful effects followed the administration of the todane A 10 per cent alcoholic solution of the drug was

employed in doses of from 10 to 15 m daily Larger

•

knaus H Thyroid Function in P egnancy (Z 5 h)d fru alu ktion a d r Schw ng rsch ft)
Ze it lôl f Gy a k 1924 1 130

nancy

~ ~ M v f Fieb n

-

hypofunction of the maternal thyroid there is ue feetive mobilization of the maternal calcium sales resulting in ery severe injury to the child He

Jack on A S Goit r with Especial R ferenc to Treatment with lodin A n Cin Md 10 3

of pregnancy Bied! A On Some Que tions of Ti 3r id and Il 3po physical Pathol gy 1 U il d 10 4 1 444

Biedl d scusses at me or the n n r theore as to the embryol g 1 1 lopment of the theroid and hypophys s J d de rib s the tructure of these

The author states that the p oblem of gotte 15

of go

4

amounts

i

of the attacks has become changed. In the case of one of the latter the pain was believed to be of a

encouraging

LOYAL DAVI M D

SYMPATHETIC NERVES

Hur - 0 10

From the use of the gold impregnation method of

died three weeks later and the other after seven

Periarterial sympathectoms on the ascending aorta was performed twice by Tuffer The operation resulted in a cure but unfortunately no detail of

tun not n

Dirmer subserving contractile tonus and the latter plastic tonus Loyal D s M D

Pice kn H C m Cm h - "

65 of a c

the 11e att ns to one another The author b pups orosical role of the depressor in man is well known. Investigations by the author showed that the depressor receives more fibers from the sympa thetic than from the vagus. The same relationship, was pointed out by Kuemmel in his discussion of

SURGERY OF THE NERVOUS SYSTEM

	OVERINGS CRANIAL	Soeman M C.
NEPVES		cul Aspects

Bailey P The Results of Roentgen Therapy of Brain Tumors Am J Rontz and 1925 xm, 48

six treatments. About 242 patients have received roentgen ray treatment for brain tumor at this chine but many of them only began their treat

Soeman M. C. and Putnam T. J. Roentgenologi cul Aspecta of Brain Tumors—Meningiomat Am J. R. et fee of 1925 to 1

overlying a larger no lular meningioma whe e there

The meaning omats have been classified according to their site of origin into (1) the cranial nerve

gland

If the progress of the tumor can be followed by

positively previous to operation but the roentgen ray should not be employed in the treatment of these tumors

Therefore in order to avoid such occurrences as

Whenever a tumor involving the brain substance

SURGERY OF THE CHEST

CHEST WALL AND BREAST

DeP

Chestie Sir C. L. Chronic Mastitis as a Tem Its Fallacy and the Danger I Its Clinical Signs B: II J: 1, 5 let The author believes that inflammation and hyperlas a ared filerent processes. He defines his con

Before the limits of operability are reached there

The connective tis ue around fibro adenomata is

three year cure in 38 per cent. The high percentage of failures was probably due to the difficulty in determining whether a cancer had already become inoperable and to the liberation of cancer elements into the wound during the operation.

Mammary cancer extends chiefly by three lym phate paths 1 The internal mammary path through the

econd third and fourth intercostal spaces and small glands to the endethoracic lymphatic chain along the course of the internal mammary vessel 2. The middle mammary bath entering into the

2 The middle mammary path entering into the subclaveular and interpretoral lymphatics to the subclavian chain of glands 3. The external m mmary path into the glands

at the edge of the serratus muscle ending in the

I the first d sion are grouped hyperplastas of the CP thelum I the peripheral ducts and some of the acmi connected with them. This type is one of the carliest stages of cyst formation which is all o g outped in this listion. The cysts vary in sixe sudorigin and may contain accisions. The second or In the radical operation the attempt is therefore made to emisse en blot the entire gla d the skin exercise it the pectoral muscles the aponeuroses and the subcutaneous cellular tissue as far as the mudhie on the inner side to the cotal margabelow and to the lower border of the latissimus

u .,

et i inc

ons are shown in liustrations
William J. Lickery M.D.

1 INTERNATIONAL ABSTRACT OF SURGERY cidents paralytic as c nectutis mort s ze you s press superts on B if i netw Sec mild d hip de Pe 1094 3 s 1 sec of S

ections between the superior laryngeal and the va

tepressor

MISCELLANEOUS

Sleard De Genres and Coste Paraly is Following the Use of Antitetanus Serum II 18 Juse po I set the page etts quoi B II 1 mém S c méd 19 Juse po I set 18 Juse

Two days later the patient was unable to hit ans

a terminal pulse of 120

1

serum

eraninas passos on the

PETTOGE SE FR & D

a d paræs

ared

l by days

SURGERY OF THE CHEST

CHEST WALL AND BREAST

Cheatle Sir G L Chronic Mastitis as a Term Its Fallacy and the Danger of Its Clini

cat Signs Bri W J 1925 S

The author believes that inflammation and hy
pe plasta are different processes. He defines his con

y in it case in the non-normal problems of limiter as period of limiter as period of transplanting the cook as pur into the cook as comb where its growth was greatly increased the author cites his own expensional results which showed that the spur would go equally as large in any other part of the body if it were it diprotected.

d m + 1 n h m m

DeBrui M The Roentgen Radium Surgicat
Treatment of Cancer of the Breast (Le traite
or tradord um-chrug al du cac du cin)
Grécle 924 xx 517

Before the limits of operability are reached there

determining whether a cancer had already become inoperable and to the liberation of cancer elements into the wound during the operation

Mammary cancer extends chiefly by three lym phatic paths 1 The internal mammary path through the

s cond third and fourth intercostal spaces and small glands to the endothoracic lymphatic chain along the course of the internal mammary vessels. 2 The m ddle mammary path entering into the subclavane hain of slands.

3 The external mammary path into the glands at the edge of the serratus muscle ending in the

In the radical operation the attempt is therefoe and to temove en \$b\$ of the neture gland the six overring it the pectoral muscles the apo curoses and the subcutaneous refular tissue as far as the mail in on the inner s de to the costal margin bown with to the flower border of the latissimus bown with to the flower border of the latissimus bown with the six of the germatic the ceillule by tissue filting the axial and the subcripular and subclaviously glands.

Cases may be di ided into two groups (1) those

extra elastica. Micro copic sect us seen in these co d tions are sh war illustrations. WILLIAM J. PICAFTT. M.D.

surgery than after su gery alone However the

author believes that it is still too early for final judg ment on this matter. He himself ha h d facilities for giving massive doses of the V ray for two years only and is therefore not yet prepared to pullish his results.

In the method now used the patient is given two series of irradiations one before operation and one after operation. Fach series irradiates the breast accompanied by more than one of the following symptoms pa a in the chest cough expecto ation

base posteriorly The breath sounds over the affect

region paranel with the first Lt 25 mgm of radium element filtered by 2 mm of platinum or mm of aluminum and 3 mm of non metallic rubber The tubes are left in place for

at tests u

TRACHEA LUNGS AND PLEURA

Scott W J M Postoperati e Massi e Collapse of the Lung A ch S f 19 5 x 73

About 3 per cent of all pate nts operated upon de

the lung is due to paralysis of the u 41 gm u probably of the ext roal respiratory mo ments while according to the Elicott and Dingley th ory it he bron had system and

Hypodermic injections of epinephrin gi e no re hef in fact there se mis to be a hypersensitiveness to it Atropin gives no relief and morphine does not change the physical findings although it gives symp

tomatic relief

Clinical evidence suggests that there is some re
lationship between collapse of the lung and post

Jesberg S Foreign Bodies in the Respurato y and Upper Digesti e Tracts Colf a & Rest W d 70 5 11 52

The author does not consider cases of foreign bod es in the respiratory tract as emergency cases

the particular case such as the location of the point of an open safety pin or the presence of sharp projections on an irregular foreign body. In most cases there is a definite history of the aspiration or shall lowing of a foreign body but an \text{N ray examination for foe gib body should be made in all atypical cases of lune infection.

The symptoms caused by a foreign body depend on its location size sh pe and composition A foreign body in the larynx causes more or less marked aphonia and cough. When the foreign body is small the obstruction of the air passage is aft very alght but laterit may become marked becau e of the ordema secondary to the ir lation

A for 1gn body in the trachea cau es coughing particularly when it i moved by respiratory move ments

Maria Aforeign bo ly does not remain long in the trachea for if its size permits it enters a bronchus and travels down as far in the tracheobronchial tree as possible.

swallow ng

tion are marked. There is grave danger of medias tinal infection which carries a high mortality. If perforation occurs in the cervical resophagus a necinfection results which usually requires external dramage.

Operation should not be performed before a thor ough \(\) ray study. If the foreign body is opaque plates made in different planes vill show its exact

S 1 T

at after the rest of the barium has passed on

The author reports a sen s of forty cases and in cludes with his report a number of \(^1\) ray plates illus trating the various pathological conditions associated with the presence of foreign bodies

SAI LEY C L ONS M D

Archibald E A Contr bution to the Subject of Et pleural The acoplasty in the Treatment of Pulmonary Tube culosis 4 h S g 9 5 x 1 3

Following a discussion of the selection of cases for extrapleural thoracoplasty the operative techinque anæsthesia and after care the author describes certain types of ojeration and reports the results obtained in his or in cases.

by the remov i of the foreign body tissue destruction r suits and a lung absc as is formed. When the f reign body is recognized and removed the lung moved

As yet Archibald has not felt the necessity of adopting Sauerbruch's preliminary phrenicotomy as a test of the soundness of the other lung. As an independent measure he believes it is rarely indiThe selection of cases depends upon an estimate

omitting the posterior thoracoplasty -he is inclined to do a phrenicotomy first in order to guard against aspiration In fo r cases Archibald performed a partial thor

acte zed by very talen e

anse

With regard to the angesthetic used Archibald states that he has never been nilling to employ local

> Blanchet S F The T atment of Pulmonary ults leck 95 4

patumo BLANCHET'S experience with artic Two hu

> 1 e

al n

th

When the cavity is discussigned entare num

> ì b the establishme it and

When in doubt he prefers t .. .

arrest of a well developed or progres we d sea posterior thoracoplasty a d in any case—that is

ŧ.

- 2 When the treatment is given by a careful oper ator complications are rare
- 3 Diagnostic pneumothorax 1 valuable in pul monary involvement
 - 4 Pneumothorax should be instituted early in cases showing no improvement after at least six months of the usual treatment for tuberculosis

 FMI. C. RO ITS EN M. D.

Amberson J B Jr Indications for Thoraco plasty in Pulmonary Tuberculo is M d J b Rec 19 5 exxi 3

to work or because they have exerted themselves beyond their strength. The danger of compression longer continued is the development of purulent The author reviews briefly the progress that has been made in the treatment of pulmonary tuber culosis with special reference to the so called sur gical procedures. According to his experience about

velopment of a measure of such value has been of particular value

Styotze classifies the cases of tuberculosis suitable for treatment into three groups (1) harmorrhage cases in which there is no doubt from which lung the hleeding occurs (2) unilateral cases with a good compensating controlateral lung and (3) bilateral cases in which cough and serious symptoms of the man might be relieved by partial collapse of one

A single pneumothoray treatment is often effective in controlling the hæmorrhage. One of the chief factors n y

In cases of G oup 2 experience has shown that good result will frequently follow the treatment even in the p esence of slight infect on of the contralateral lung

I neumotho ax fails to effect a cure most fre

vertebral rib resection as the procedure of choice

The indication for thoracoplasty is a chronic fibro cavernous predominantly undateral pulmonary tu berculosis which has failed to respond to a thorough trial of more conservative measures. Cases of this

condition may be divided into four groups

Those with long standing extensive unilateral
disease which are seen late in the course of the
malady

2 The e which have responded to a period of sanatorium treatment and in which the subacute or chronic ulcerative and caseous lesion has been

sociated with the danger of hamorrhage

4 Those in which the contraction and massive fibrosis have caused distortion and displacement of the heart and great vessel with embarrassment of the circuit to

Thoracoplastic collapse has been used also in cer tain cases of intractable harmopty sis in which pneu mothorax could not be induced and in cases of tuberculous mpyema

In co clus on the author emphasizes the importance of close co operation between the physician and in the surgeon and of strict supervision of the pritent by the physician after the surgeon has complete! this operature tre timent. All concer of must realize

best chance for pparent cure. The various complications and the results of partial and complete pneumotho ax in the author's cases are given in tabular form. Sing draws the following conclusions:

x All e dence points to the g est value of pneu mothorsx in the treatment of pulmonary tuherculo sis Graham E A Cautery Pneumectomy for Chronic Suppuration of the Lung A Report of Twenty Cases 1 k S t 19 5 39

To date the author has done extensive cauteriza tion in twenty cases of chronic lung suppuration RESULTS FROM CAUTERIZATION IN TWENTY C SES OF CHEONIC LT. G. SUPPLIFATION

Fre from ymptoms and c mpl tiv h ald 4
Free from symptoms b t with r ma ning
bronchial fit lie 6
M ked mp m nt but with some cough 3 75
Be fitted improvementatil in proper 2 2 20

Not heard from 1 5
Dead 4 20
At the time f he arrection 1 the proof f this see in O. he

At the time f he errection it he proof it has science. be a term of normal passe or i from yeapt me dompt by he he he hasking it here re f is to pe t

of three patients with a localized peripheral

or three patients with a localized peripheral growth one had no symptoms at all r ferable to the chest but complained of pain in the joints and weak ness. The tumor was discovered in a routine fluoro-

formed metastases when the patients entered the

after the removal of the cautery Smoke may be ex haled from the no c and mouth and if hemorrhage has occurred a little blood may be expectorated There is no shock. There may be a marked dim nu

- 1 i

roentg nogram til 4 di 8 58 i pii ii

A detailed and illustrated report of the twenty cases is given Emil C Robinshie M D

blosser L Primary Tumors of the Lung A ch

The author reviews twenty seven cases of primary tumor of the lung. The reports for eighteen are farly complete. For the remaining mine there are

HEART AND PERICARDIUM

Hall A J and Townrow V Purulent Pneu mococcic Pericarditis Pericarditotomy Re covery B t M J 19 4 n 1148

sound was heard at the upper part of the left border Paracentesis pericardii was performed in the fifth space r/ in from the sternum the needle being were retracted inward and the pericardium was exposed and incised. Thin purulent fluid escaped Adramage tube was inserted and passed behind the beautiful and passed behind the

Pyreua continu d at the left base where dulness and dimmished breath sounds persisted. As pus was found the left pleura was opened and drained Thereafter the temperature fell to normal and the pat ent made a steady recovery.

If the diagnosis of pericarditis with effusion is correct these should be little risk to paracentesis. The operation of drauming the pericardium can then be carried out under more favorable circumstances. Movement H. Mann. M.D.

ŒSOPHAGUS AND MEDIASTINUM

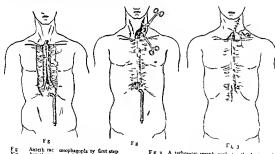
Roysing T Antethoracic Esophagoplasty A
S g 9 5 l x1 5

Roysing discusses briefly several methods which

tained many polymorphonuclear leucocytes with

On the muth day 200 c cm of thin purulent fluid were aspirated and this treatment was again followed by definite periodical Inction sounds. Later the pericardial inclusion sounds. Later the pericardium was opened under local angathesia in duced with alypin and i in of the fifth left costal cartilage was excised. The internal mammary vessels.

case was as follows



Fg Anieth rac cesophagopla ty dist step Fg 3 A tethoracic cesoph gopl ty th d st p the nw ersoph gus i n tin s w lh th gastr fistul

(Rev g Ind th E ophag platy)

~ **L** ...

RESULTS FROM CAUTERIZATION IN TWENTY CASES OF \$1.00.00 IL NO SUPPLIFATION

Fire from mptoms and completely hested 4 20
Fire from sympt ms but with remains g 6 50
Marked improve me to but with some cough 3 15
Benetited improvement will in progres conditions of 6 20
Valence of the condition of 6 20
D ad 4 2

It he too ith receive the proof the richel On her a statement power part feature implemental mpl by hield in king to all there to the part of the statement of the part of the statement of the proof of

therapy and the a piration of open bronch t are of importance

A detailed and illustrated report of the twenty cases is given EML C Rouris in MD

Eloesser L. Primary Tumors of the Lung. Ack. Su g 1915 2 445

should suggest a tumor

HEART AND PERICARDIUM

Itali A J and Townrow V Purulent Pn u mococcic Pericarditis Pe learditomy Re

covery Bri M J 1934 1148

The author's patient a 17 year old boy develope 1 acute pain over the left front of the chest. On the third day he was in great di tress and showed signs of princardial effusion the was collapsed and gray with a most skir and herjes on hi lower hip. His temperatur was 102 8 degree F his public 120.

sound was beard at the upper part of the left border Paracentesis pericard i was performed in the fifth space i/in from the sternum the needle leing

tained many polymorphonuclear leucocytes with pneumococci

were retracted inwar! and the pericardium was exposed and incised. Thin purulent fluid escaped A drainage tube was inserted and passed behind the heart.

Pyrexia continued at the left base where dulness and dimmished breath sound persisted. As puwas found the left pleura was opened and drained. There fier the temperature fell to normal and the patient made a steady recovery.

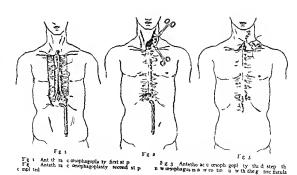
If the diagnosis of pericarditis with effusion is correct there should be little risk to paracente is The operation of draining the pericardium can then be carried out under more favorable circumstantes Morres II Kairs MD

GESOPHAGUS AND MEDIASTINUM

Rossing T Antethoracic Esophagoplasty A S g 1925 1 273 52

Roysing discusses briefly several method which were previously advocated for asophagoplasty but have a high mortality

His own method an operation in three stages has been used in five cases. The technique in the first



e 1 1 14

Œ oph gop! ty)



Fg 4 Antethoracie osophag plasty fin 1 s lt e cellent swallowing funct

to a true stricture

Between two clamps the exophagus was cut through and the mieror end was then drawn out through a

In four of the cases reported the stricture was due to the swallowing of cau tie soda and in one to a very severe diphthena CARL R. STRINER M.D.

SURGERY OF THE ABDOMEN

ABDOMINAL WALL AND PERITONEUM

Joyce J L Subperitoneal Effusions Simulating Acute Intraperitoneal D sease Bif J S rg 9 5 X 547

Handley W. S. Acute General Peritonitis and its Treatment B t J S g 1925 m 417

The author confines his remarks to peritoritis of append ceal origin. Acute general peritonitis is a

toma secondary to the rupture of an angioma which caused acute intestinal obstruction a traumatic

In surgery great progress has been made in the treatment of peritonitis Murphy recommended

the tympanitic note over the rest of the abdomen I FRANK DOUGHTY M D

obstruction

1

The first stage of general peritoritis is usually a

Jezie ski S Cases of Periton tis in the Gynecologic cal Clinic in the Period from 1913 to 1923 (D)
Pento t f ft der Fraue kink a d Jahren
1913 1923) D ss tats n F ankfort 19 4

cuver h n

known ettology. In the treumscribed cases the con dition follow d abortion in thirty seven (24 3 per

Of eighty six diffuse cases treated by operation twenty four were cured while of forty two cases t 1 d -

jul cent) we e cuted. Of the thirty-one not operated upon one (3 per cent) was cuted

Decessory

JOHN W NUZUM M D

SK1 (G)

h _____1

GASTRO INTESTINAL TRACT Bastianelli R Pylorus Spasm and Its Surgical Treatm of 4 S #2 1915 | 181 45 The roentgenoscopic demonstration of more or less permanent closure of the pylorus during con tractions of the antrum seems the best proof of the presence of the condition. If such a closure yields

402

pleted in normal or nearly normal time the closure is not to be regarded as of great importance since being transient it cannot produce definite changes

after a time and the emptying of the stomach is com

and often incomplete layer of muscular tissue and pentoneum

SANCEL KARN M D

Sherren J Acute Hæmatemesis nd Melwne La 61 1925 CC 03

The terms hematemes a and melana are used

of such a closure-whether it is spassic or organic-

persons who have been in good nearth and tho o

nervous system Bastianelli believ a that our theories of pyloric

lesson found

True diverticula of the stomach are rare They are invariably situated in the immediate neighbor hood of the cardia As the wall of the storrach is weak around its junctue with the esophagus & pouch may develop here as the result of increased intragastrie pressure Such diver scula are com parable to the more common d verticula v hich oc ur at weak spots at the juncture between the pharynx and exophagus Th y are probably not congenital

True gastric diverticula are generally about the size of a cherry Their walls are form d of mucous membrane i hich is usually atroph c a very thin disease)

ı

ii cases with a history of margestro i and in wrich a diagnosi of ulcer is made operation should be

view recumb nt position and palpation over ac cessable areas have been added to the technique Even with these methods however lesions high in the stomach or posterior wall may fail to be dis covered

Although they are seen along the lesser curvature mo t gastric ulcers are not situated immediately on

un and in snock of the first Lan image has abated usually about thirty six hours

abated usually about thirty six hours
Postoperative hamatemesis 1 discussed with re

15 present of the energy means and 16 per cent in the cardial third. Niches of ulcers so situated and other lesion of the posterior wall

author a cases of gastrojejunostomy since he began to loosen the stomach clamp before putting in the

mally the stream does not wander about haphazardly but follows a direct course in the upper part of the

and may be due to the original ulcer or to a fresh ul er Beed g occur d alter operation in five of the author's cases in which there was no pre opera

patient in whom the operation brought about a sufficent decrease in gastric activity has h d any postoperative symptoms whatso ver OSCAR S PROCT R M D

OSCAR S PROCT R M D

Carman R D Techni I Aids in th Ro migeno logical D monstration of Le ion High in the St mach and a the Posteri r W M R J I gy 19 5 33

Althouh am

lo hi de a ser and Lenk have noted

v (ac --1 Gastro enterestomy with or without exclusion of

incidence of gastrojejunal ulcer The techn que of these no loop retrocolle postenor

lesser curvature was suspected. At a third examina tion the patient was again screened on the ho icontal

tm t of thro se gastric a d duod nal ulcer

stomach

5 Roentgenography in the obl que or transverse e en 1s th oh) que views in mentgenoscopy are in valuable plates made in the oblique diameters may also be helpful and may reveal a small but definite

150 Lewisohn R The Frequency of Gastrojejunal Ulcers Surg Gy 5 Obst 19 5 zl o

Lewisohn states that gastrojejunal ulcer is un doubtedly one of the mos senaus of the sequele of gastro enterestomy and in most in tanc s smuch riore painful than the or gir I picer f r the r hel Raf ky li 4 The T atm nt of G tric Hæmor rhag in 1 ptic Ulcer I tr t J M d & S rg 1925 IVIII 8

In t ulcer

hemorrhages Most of the hamosthage ap pite ule ris cap llary

com a from the ero on of the mail r a t nes

the anatomical arrangement of the blood vessels of the stomach and duodenum the hermorrhage is greater than would be expected from the see of the bleeding vessels and since the smaller arteries The fitteen other cases operated upon were chronic the symptoms having been present for from three to seven years

Medical treatment was given a fair

Diagnostic criteria were the

f readministered by let ut

marked dehydration and over night retention of food. In all cases there was a mild anamia. When the history and the physical and X ray findings

one an active pulmonary tuberculo is I hree had splanchnoptosi one mild epilepsy three a well

Cottle G F Th Surg ry of Juxtapyloric Ulcer
A S g 925 lxx 49

Oi 3 769 cases admitted to the United States Naval Hospital at Brooklyn eighty one were diag nosed as gastific or duodenal ulcer. Of seventeen cases which were operated upon for ulcer fourteen showed ulcer two no ulcer and one an ulcerating

the abdomen and absence or liver usuness the first case which was operated upon seven hour after the onset under ether anesthesia the uter was in folded and the abdomen closed without drainage Later the part ent had active pulmonary tuberculous and ten months after operation complained of gastne sympt ins.

In the second case a perforated ulcer was excised

or hæmatemesis

The four pattents with gastro ulcer suffered from counting and we elses definitely releved by the ingration of food. The symptom periodicity noted in the cases of duodenal ulcer was absent. In one case there was no baruum retention in two a retention for seventy-eight hours, and in one a retention for a bours. The ulcers were large and callous for the chromic periodicity with the chromic periodicity. The four cases were treated respective 19 by V extision cautery excision dicteriors.

by the

al ge filling defect at the pylorus The tumor was

(intense sel rots react on with ne ly formed car l lanes or destructive ev lution) In such cases the peritoneum is uninfecie! The gastric coliti temporarily overcomes any bacteria in the gastric contents single or miliary abscesses may occur Moutier noted two types of septic perforations possibly due to the streptococcic toxi s In both types the perstoneum becomes infected 181

structe i also to confine their diet to bia hi sou

bidden

In the seventeen cases there were no deaths The immediate results were excellent. The follow un reports showed an apparent cure in all except the case of nulmonary tub reulous and the case of

Du at P TI e Operative Treatment of Perforated

1024 1 908

tissue If the mechan cally perf rated ulc r s h aled r healing the peri rat n and the simple suture do not

I ne tect heaut a

(I) ٠, ite ŧΓ hy

ne mv

stomach In a study of nineteen specimens-fourteen of gastric ulcers and four of duodenal ulcers-Moutier d that there are two general types of perfora

or small & 5 I

results if the sutures are placed in an amicrobic area. However an extensive gastne resection gives the best results because when a larger portion is re moved there is a better opportunity to place the From his own investigations and the reports of Brunner and Brusett the author concludes that in 90

. ..

found. The numbers of the bacteria depend chiefly upon the hydrochloric acid content of the gastric jusce. As the result of severe abdominal affections and operations, the hydrochloric acid content be

foration may be purely mechanical and amicrobic

gence of opinion as to the best operative method

Loehr W A Clinical and Experiroental Contribu

The author discusses the treatment and cure of perforated gastno and duodenal ulcer on the basis of the cases seen at the kiel Chino during the last twenty years

If the operat it was performed within the first twelve hours after the perforation, the mortality was 16 per cent in the cases of gastric ulcer and 4 per

ii ii. unst tweive nours used immediately of suppurative peritoints but all of the deaths of those operated upon after twelve hours were due to this cond tion. In the cases in which recovery resulted when the operation was performed after twelve hours and non case in which it was performed after five days it was found that the lesion was a small ufter or a covered perforation which would

sterilty of the gastric and duodenal membrane and contents gives place to the entitance of colonic batteria. This explains the seventy of renewed perforations. In five cases yeasts and thrush lungs were found in the gastric contents. Vow Rewitz (Z)

Finsterer II Ulcer Carcinoma of the Stomach (Das Ulcu arc om des M gens) 4 ch f kl Chir 1924 Ct 1 7

Opmons as to the frequency of ulcer carcinoma are still widely divergent. While a number of clim cans and pathologists (Bier Anschuelz kocher Aschoff) hold this change to be extremely rare others (Zenker Payr Kuettner Ochsner) maintain that it is relatively frequent. The difference of opinion is

geons

At first the ulcer carcinoma looks like the usual callous ulcer Characteristic of the areas that have

of the development of cancer after gastro enter ostomy for ulcer (Loehr kocher) is attributed by Finsterer to the fact that in a certain percentage of removed by a gastric e cision surround ng the small pedicl d base. One year later the patient returned complaining of indigest on loss of weight nersou ness and constipation

In the cases without ulcer the history and physical

(intense sclerotic reactio with newly formed can l lanes or destru tive evolut on) In such cases th perito eum is uninfected. The gastric acidity temporarily overcomes any bacteria in the gastric cont nts

The acute or chronic inflammatory ulcer with in fected contiguous valls perforates as the result of subacute necrosis or suppuration due to numero hact ma in its walls Intrapanetal streptococcic

oxygen ether in ten. Two patients who were given ether developed po toperative complications-one a brief bronchopneum n a and the other re activa tion of pulmonary tuberculosis

Before operation the teeth were brushed and the stomach was lavaged Twenty four hours after the tance an abscess buried in the ulcer depth or dissemmated miliary intraparietal abscesses and () a touc perforation with an acute tissue pecrosis possibly d e to the streptococcic toxins In both

of the periton al and gastric lesion is the same ie a streptococcie perforation causes a streptococcie penton tis

the hospital they were advised to have treatment

at the The

neurasthenia

Duval P The Operati e Treatment of Perf rat d Gastroduodenal Ulcere Indications Furnished

1024 1 008

The accepted treatment for ulcer perforation is

operation performed as soon as possible but the operat ve methods vary widely from simple suture and excision to more or less extensive resection of the stomach In a study of nineteen specimens-fourteen of

gastric ulcers and four of duodenal ulcers-Moutier two g neral types of perfora

tissue

a F + 1 7 s he led ar Hopkins Hospital in the last thirty five years These

eration was necessary in seven Induration of the nancreas was found in approximately o s per cent of 735 cases In 11 per cent of the 735 cases more than one operation was necessary Cholecystostomy had been done in 89 per cent of these and chole cystectomy in it per cent Disregarding the type of operation done it is noted that the ultimate result was described as recovery in 50 per cent of the cases improvement in 8 5 per cent and no improvement or a recurrence in 4 5 per cent. The hospital mortality m the 735 cases was 9 5 per cent The cause of death was peritonitis in 30 per cent hamorrhage in ri per

out ston was approximately the same in males and

and SI per cent to some type of dramage operation Companing the two groups it is seen that after

risk were acute pain and muscle spasm fever deep

about 40 per cent of the cases of cholecystitis with stone 40 per cent of the cases of cholecystitis with out stone and or per cent of those with stone in the common d

Billally colic was gr en in XI n

operation was classifi d as acute

Forty two cases presenting malignancy of some

part of the biliary tract are also considered in this report Seventy per cent of the patients were fe males. The youngest patient was 34 years old. In 70 per cent of the cases the symptoms had been pres

t b t upper abdomen in 73 per cent of 727 cases

est Was Inage marked leucocytosis up to 39 000 was found in many of the cases

ar

are relatively poor. Of sixteen cases, not less than seven ended in death from metastases (not from local recurrence) within two and one half years.

The author advocates for cases of ulcer carcunoms and for ulcer in general the resection of two-thirds of the stomach for the removal of the entire lesser curvature Among other factors that led him to this procedure was Stoerck's demonstration of the fact that in cases of chronic ulcer not only the antrum but al. o the bordering fundus region exhibits a severe chronic gastratis.

Rytkoelae T Two Ca es of Knot Form tion of the Small Intestin (7w 1 I lie v n D d m knot n) F skol k 1 li k k dl 9 4 iz 635

A has be chematic drawings

White F W The Clinical Importance of Chr nic Changes in the Appendix 4m J R 1g I 1025 x 12

stasis

The appendix may be seen filing during the examination regardless of whether buttermilk or starch gruel was used for the banum meal. Segmentation or beading is found in about one third of normal cases and therefore h s no value as a sign of nathological changes. Filing around faced masses LIVER GALL BLADDER PANCREAS AND

SPLEEN

Deav r J B The Surgery of Jaundice A S g

From the surgeon s viewpoint there are three path

only by early splenectomy

184z -- --

Bialock A ASt tistical Study f 888 t.a of Bil lary Tract D s a B il J h H ph H p B it 19 4 xxx 39

Bial k reviews all of the c s of bili ry tract d case t eated on the urgical se vice of the Johns pancreatic juice and he produced acute gland ne cross by injecting bile and sweet oil into the pan creatic duct

mortems Mann found the anatomical arrangement of the Halsted Opie case in forty Judd states that

alone Mann states that the bile pressure in the common

duct is due to (1) secretory pressure (350 mm of bile) (2) gall bladder contraction (300 mm) and and cally

brought about by the action of the sphincter of Odd with increased bile pressure. In oper cent of bodies the duct of Wirung is about no very small. The duct of Santonin opens, into the duodenia without any protective mechanism against the duodessi on the properties of the case of acute pancreat in the duodessi of the case of the

cystectomy) tor stones or gali bladder disease (at a primary or secondary operation depending upon the nation s condition)

In addition Archibald advi es transduodenal in a ion of the papilla of Vater and sphincter of Oddi to present retention of bile. Moynihan bel eves that the patient's condition may sometimes prevent the

latter The diagnosis is almost invariably made before operation but the discovery of fit necrosis and san guineous fluid at operation removes any doubt. In many cases the transver e colon is found dilated and markedly congested. In severe cases the pan creas is a deep purple philegmon distended with booth the participant of the plant with a little turbul sanguineous fluid in the le ser sac or behind its post heror layer. Incision of the pancreas is unnecessary. An edematous soggy gland may be opened by in suitable, the programment of the p

WALTER C BURKET M D

MISCELLANEOUS

Brickner W M Pelvie Actinomycosis 411
S g 1925 1 343

In a detailed report of five consecutive cases of pelve actionogroes in which the duration of he disease was three eleven four two and twenty sears respectively Brickner describes his treat ment with all of the known sgencies recommended for the cure of this condition. In all of the excepted the disease apparently originated in the intestines. The intestinal actionogy on smay under go healing while the condition is spreading in nearby tissues.

Ine intection
Brick h 1

1 e o tilt has been reflected (3) isol tion of the pancreas by rubber covered gauze mg k /m

e ye we suipnur granules of actinomy costs may appear a the pus for only a short time or not at all but in mot instances may be found in the tessues. The die as should be diagnosed from the history and the appearance and behavior of the less ons wen though the org misms may not be foun!

With regard to the trainment Brickner advocate bold and persistent surgical attack with free drain age and irrigation of the abscesses wide excision of

chronic cases an abscess may develop in and around the gland so slowly that it has time to point in front

rant cases

At operation clear bloody or bile stained free fluid was found in the peritoneal cavity in 32 per

Stight jaundice may occur General abdominal

all of these the symptoms were suggestive of chole cystitis an i in aix there was tenderness over the

LINEY IN DAL AL D

Judd E. S and Burden V G: Internal Billary
Fistula i # S & 1925 ixxi 3 S

Internal biliary fixtula is a late complication of choleithians. It rarely occurs in the absence of ralcul. The organis tavolved are the duodenum colon and stomach. The fixtula is nextly always a direct commanication, only rarely as there as intervening absence scavity. The symptoms are characterized by long duration and secretty. Intestinal

become severe and associated with an eve ing

and interact

cholecy stectomy when possible and careful sup oration of the ducts for stones. In some cases emergen cy drainage of the gall bladder and ducts may be

Hence inflammation of the comm n-uuc waspread to the pa creas The duct of Wirsung a d

Mojnihan Sir B Acute Pancreatitis Ann Sug

It is describes harmorthagic gangarnous and suppurative types of acute pancreatitis. These are essentially the same differing only in degree. In the most acute and rapidly 1 is forms there is harmorthage throughout the gland. In less acute cases the patient may discharge sloughs of pancreas and fat for many weeks after operation in more

oth r

The 100m diate c use of gland ne ro s is the activation of the payerestic 1 ic within the gland

GYNECOLOGY

HTERHE

Polak	J	0	Uterine Hæmorrhage	Atla	t c	¥f	3

as clots always signify some abnormality and true menorrhagia is always attended by considerable clotting

025 TV1 th h m n

hæmorrhages 2 Those due to changes in the uterine tissues enlarging the area in the uterus which responds to

- the ovarian impulse such as the bleeding of descen sus retroversion etc. Those due to the formation of new grouths in
- the uterine wall 4 Those due to disease in the adjacent organs which increases the premenstrual congestion
- s Those not preceded by a period of amenorrhora

tion hydatidiform mole ectopic pregnancy and the bleedings seen in the later months of pregnancy) and those not preceded by a period of amenorrhora or following the menopause which are usually due to polypoid or malignant changes

In the diagnosis of uterine bleeding a detailed history is most important because the menstrual

ı

flow dated from a miscarriage (9) whether the in crease in blood loss was gradual or sudden (10)

Heyman J Final R suits in Radium Treatment of Carcinoma of the Cervi Uteriat th Radium Hom Stockholm Sweden S g Gyn c & Obst 925 zl 161

- 1 1 6

an increased flow at the period prolongation of the period or too frequent recurrence of the menses It

such as myomata adenomyomata carcinomata and sarcomata will cause an excessive menstrual flow The coagulability of the menstrual flow is significant Crite G W Postoperati e Complications of Ab dominal Operations A s. Su g 1925 laxx 3 6

ائليہ س

emergency

vent it

In postoperative hamorrhage from the surgical

operation operation
A warm water mattress on the operating table a
pneumonia jacket care against exposure to drafts
h

4 - 4

that of Holland Moreover the patients often react entirely differently to a therapeutic agent or metho i of treatment

He states that we are ju t at the beginning of knowledge of the pathology of the female sexual organs in Java basic teachings and literature are still entirely lacking. Though his material was small

this fact may be due to the much more frequent oc curence of inflammatory processes of the genitalia in Java LAMERS (G)

Lue - O Th D - F# 4--

to the heat stimulation. Even when the thermal effect is obtained by way of the vaginal mucosa the body maintains its usual reaction which governed by the vascular nerves does not require the participation of the central nervous system. The degree of the

In thirty eight thermo electric measurements of the deep effects of various method used in the different persons on whom the experiments were made LUERMANY (G)

The cases reviewed were treated with radium primarily. Of sixty six reported in 1920 34 3 per

When the incision is closed an opening is left

the author has giveys he placed the pit i

...

of the cervix

The operable cases at the Radium H me corre

In summarizing the author states that in omparing operable cases treated surgially with those treated by irradiation the following facts should be borne in mind

t The primary mortality is low (a z fer cent in

not free from symptoms there was a more or less it ting improvement

Radiological freatment has probably great

nm.

Seelignmann G. Two Years Experi no with the Combination Treatment of Su gety and Radium Rays in Cases of Carcinoma Uter; 4m f. Ob f. 5-Gyst. 2 103: 12 66

r h hh she doned

1.4

.

After closure of the abdomen v ginal needing was done. The needles were inserted into the cervis i on the vaginal surface and by way of the cervisal car al

LOWIE L LU

MISCELLANFOUS

Boetma N. J. A. F. The Occurrence of Cane of the Genttal Organs of Women in Bats is (Eungas u ber d. Y kom. 'on Kr bs. a. dc. (4 srbiechso gane der F. uc. Batav.) Ad I Jufich. G. k. 024.) 373

n n n l t the clinic of

1

tines

The bladder and other organs are protected from the action (the rays b) the insertion around the container of a specially preferred right layered gauze timpon to yels long and to a wide

507

OBSTETRICS

hospital is being recognized throughout the entire HARVEY B MATTHEWS M D world

Greenwood W. O. Molding of the Fetal Head and Its Consequences J Obst & Gy ac B & Emp

The author points out that lacerations of the dural senta of the fetal brain are much more common than is generally believed. Fully so per cent of still births may be attributed to tears of the tentorium cerebelli and the falk cerebri with consequent hamor

rbage To determine the mechanism of these tears Green wood made a plaster cast mold of the head im mediately after delivery in various obstetrical positions and again one week later. From these

1924 XXX 011

MISCELLANEOUS

Watson B P An Address on the Teaching of Ob stetrica B / W J 1924 1 1185 In this addre is on the teaching of obstetrics which

was delivered before the Edinburgh Obstetrical So ciety Watson emphasizes the importance of syste matic lectures to form the foundation upon which the Instruc

> should be the stu deliveries

SCHOPF (G)

The same principles should apply to the training of midwives Many hospital graduate too many midwives and thereby hamper their obstetrical

instruction in obstetrical nursing before graduation In conclusion Watson states that the importance of linking up the maternity hospital with the general particul rly in cases of occiput posterior positions in which the return to normal was much less apt to be complete In fact in cases of occuput posterior and brow presentation demolding often never takes place completely. Theoretically demolding ought to continue throughout life but because of con sobdation from ossification it is soon arrested

HARVEY B MATTERES MID

OBSTETRICS

1

PREGNANCY AND ITS COMPLICATIONS

Tuttle H & The Treatment of Abortion 5 . Gyn c & Obst 1925 1 87

There were twenty six deaths a total mortality of

2 23 per cent
Tuttle draws the following conclusions

3 Routine version and extraction as practiced by Potter himself carries with it a fetal mortality more than twice that of competent expectant supervision In the hands of some of Potte s followers the procedure has a mortal ty more than twice as great as that in Potter a cases

4 Casarean section while s fe for the child and

immediate active treatment occurs in approximately

usage as best to conserve the wellare of both Ross n & Cra M D

PHERPERIUM AND ITS COMPLICATIONS Salwan G . On the Treatment of Puerns al Fe er

and Septle Abo tions with Dakin a Solution A to tyn & Seand 1994 11 33 as to mal

I he f ne cases of septi appli u

the as

K JAND C

LABOR AND ITS COMPLICATIONS

Breckenridge S D The Abuse of Fo eps and Other Methods of Hastening Delivery A

The author draws the following conclusions re garding the use of forceps and other methods of hastening delivery I The routine employment of pituitin prior to

the third stage of labor carries with it a definite

NEWBORN

Forschu r Borke II A Catamne is of the Pre-matu e Bi th in the Children a Clini of Freiburg (Ere E tampese de Fru by bert a de be bege K d klank) Arch f K Jer helk oalz 2

This article reports statistical stud s on the amma to d

as the ning to

A.

He finds no other type of kidney pathology in

The symptoms are very vague and inconstant

ment but may also be the most hazardous

bacilli were isolated in smears or demonstrated by guinea pig inoculation. In one case the symptoms were characteristic of tumor of the renal pelvis and in the other the kidney had been entirely replaced by fat

Bugbee concludes that tuberculosis of the kidney is more frequent than is generally believed and that in some cases a low grade tuberculous infection of the kidney may be self limited

GILBERT I THOMAS M D

Ockerbtad N F Pertneph tic Abscess as a Uro t cicat Problem J Am if Ass 10 4 1 un 2074

Perinephritic ab cess is a urological le on and

ten cases

The etiological factors were an unknown cond tion in one case a stone in two cases tuberculous pyone phrosis in two cases and carbuncle bronchopneu monia with retention of unine influenza tonsillitis

age and five by nephrectomy and dramage. The earl er operation s performed the better the prognos s Four of the cases reported were chronic CLAUDE D PICKRESS, M D

Mckim G F and Smith P G Solitary S ous Cy ts of the kidney J Url 94

The art class based on 120 cases of obtary serous cysts of the k dney rry of which have been reported in the literatu e and three of which occu red in the authors practice. The a e age age of the patients was 42 7 years The great majority wer women

The condition is attributed by the anthors to a cong nital d fect of development in the extreme outer po tion of the renal cortex

THOMAS F FINEGAN M D

The authors report two cases of papillary cyst adenoma of the kidney and di cus the relationsh p between the tumor in the renal cortex and the

2 That the renal tumors are metastases from tumors el ewhere in the body

That the cortical tumor is a metastasis from papullomata primary in the renal pelvis

4 That the papillomata are metastases from the co tical tumor

The theory of the eyr tence of two primary tumors has much in its favor. The assumption that the renal tumors may be metastases from tumors else where in the body has no proof. A solitary metas tast of a primary pelvic tumor in the renal cortex appears most improbable whereas the tendency of papillomata to transplant themselves down the urmars cur ent a well known Because of the possibility that the vesical papillomata may be transplants f om tumors h gher up in the urinary tract a complete urological examination including bilateral pyelography should be made a routine Even when complete resection of the ureter is done in addition to nephrectomy recur rence in the bladder is to be expected

Belt A E and Joet n J J The Effect of Ligation of Branch s of the Renat Art ry A h S g

THOMAS F FINEGAN M D

In the vork reported in this article the authors

at 1 py men wite pattry supplied by a polar artery and (3) dog krdneys in which an experimental m farct had been produced by ligati g the anterior division of the renal artery

GENITO-URINARY SURGERY

ADRENAL KIDNEY AND URETER K - 1 C TL

Among the forty three re ently reported cases

kidney is produced During the past year several cases have been re

a few days after the operation The transperitoneal route gives the best access and causes the least trauma HARRY W PLACCEMETER MD

Janssen P Bleeding from the kidney Without Demonstrable Gause Essential ligamaturia (Zur Frag der he enbl tinge au noth etkenn has e Ur ache e sent alle il ematum) Zir kr f u of Ch 1934 x 87

cas

Bugbee H G Two Cases R p es nting Unusual Type of Renal Tuberculos! J L ! 9 5 n 6

of two u usual cases

1

under tension the peritoneum under which it lies

cent of stones require operation for their removal

the patient must be kept under observation

; preciomy

borne in mind

The second group of cases are those in which ne phrectomy is necessary In one ca e th s operation

became indicated because of a severe suppuration of

In another case nephrectoms was done after two

the kidney three weeks after removal of the stone

the ureter even in the male. In closing the wound the authors introduce a gauze strip down to the point of the incision in the ureter. This drain is left in place for several days. JANSEN (7)

BLADDER URETHRA AND PENIS

Hammond T E Trigonitis as a Cause of Irri table Bladder Lone : 9 4 ccvn 334

Trigonitis usually occur between the ages of 40 and 55 years. It may follow pregnancy a pelvic tumor or infection.

The onset is usually insideous with or without untary findings. The symptoms are pain increase i frequency of unnation and burning. The general health gradually deterorates. The unne is usually of ar and sparking. If you so present other issues must be elisamed. The pain at the neck of the bladder is intense when the cystocopie is passed of the bladder is normal. Colematous patches and shallow ulcers may be present. The congestion of the bladder is normal. Colematous patches and shallow ulcers may be present. The congestion of the bladder is mornial.

helal in

be

very dis appointing. The infiltration of the trigone as do e by Lindemann bas given good results but is very difficult. Since 1010 the author has been usi g

5

rection of the upper passages complete occlusion u a

d elopment of a stump empyema or a penureteral

phlegmon from such a stone even vears later must be

opinion the postoperative course of such cases is considerably more favorable when the stone 1 located high th n when it is deep

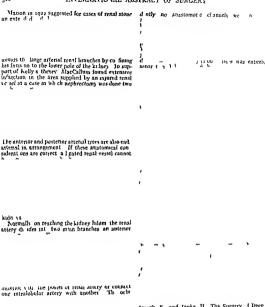
In the authors cases treated u gic lly the p lvis is elevated and a cushion is placed under the p lvis on the sid in the

4 The usual treatments for chronic cystiti are of no avail

5 Diathermy gives immediate relief
CLAUDE D PICKREIT M D

Negro M and Bl nc II Clinical and Surgical Considerations Based on Thirteen Cases of Diverticulum of the Bl dder (C n d rato l qus 2 péat e u jet d tre c s d t reluse sea) J d i méd i k 924

The authors thirteen cases of diverticulum of the bladder are reported in detail with the rountgenolog



Joseph E. and Jonke II. The Surgery ! Deep Uret r 18ton s(II tragsur Chrug t l treed c Ur terste) Zl k | r l Ch | 524 x | 575 The m st common site of t tark rat d ureter 1 greatly favors bacterial growth To kill the bacteria an irradiation of at least four minutes is necessary To treat a recurrent chronic gonorrhea with the

> therapeutic agent which has some chance of success in certain rare and favorable cases WALTER C BURKET M D

deeply Luth cured by this method a case in which dila tions and instillations failed. In acute gonorrhora Luth does not employ ultraviolet light as long as the

GENITAL ORGANS

Franceschi Injuries of the Testicle (Des t um t ismes test c l) Arch urol de l Cl d N ch r 10 4 253

This article deals only with violent traumatic

ı

cases a slight circular burn may occur Using a careful technique Dufestel and Lazard obtained results nearly as good as those given by medical treatment the galvanocautery or fulgura tion Sy tematic microscopic examination showed that sterilization paralleled the restitution of the urethra. In a case with moderate prostatitis and a morning drop contain g many polynuclears and common bacteria without gonococci the condition

tion of hamatemata and the occurrence of torsion and volvulus

The findings of experimental work on dogs with regard to hamorrhage after rupture of the tunica albugines are reported KELLOGG SPEED M D

Rett

Vasol g tion and resection of the vas deferens are

Heads of spermatozoa are found in numerous tu

without bacteria and ith ut lesions d tectable by the endoscop A case 1 reported in which this 512 ical findings. In some of them difficulty was experi

enced in catheterization and in those with pyelone phro is nephrectomy was necessary Most bladder diverticula are silent and are di

covered only at cystoscopy or at operation for a sup pose ily lifferent urmary condition. The symptoms are rarely noted before the fortieth year of life but three of the authors p tients were under 40 years of age. Only two of the repatients were women

In seven cases the diverticulum was para ure

tion by the superficial cell the deeper cells receive a stimulating dose

5 Capillary cell destruction The vessels are obl terated by connective tissue so that the cicatr r is very pale and only sightly vascular

For want of a satisfactory unit of dosage or method

water The therapeut c rays have a wave length of fr m 400 to 240 miera The I rearm placed without

Lateral diverticulum dissection of the lateral wall of the bladder up to the edge of the diverticulum r section of the wall at this point removal of the layers and partial closure with a tube in the bladder and a paravesical drain KELLOGO SP FD M D

Dufestel L G and La ard P The T chnique

prostatitis with rat glau turbances which were treated with the Kromay r

quartz lamp and rod v th an olivary tip Several

killed

remained clear Another patient aft r on ye rs treat nent for A A the bladd rand pros

reighboring tissues an inflammatory state with an eliminative and regene ative tendency After filtra

١

1 The operation of choice is resection or amputa

tion without exploration

2 When exploration is neces any the surgeon should be prepare I to cautenze and to make frozen

Sections for examination
Chondromata u ually recur if they are explored or
removed p scemeal
FR NE G MURIPHY M D

Noble T P Myos tis Ossificans a Cl nical and R d olog cal Study Surg Gy ee or Ob t 924 x 1 795

m tic injuries or infe tion or may appear sponta neously

Seven theories have been advanced as to the etiology but not one of them vill explain all cases sat lactorily. The author emphas zesthe importance at the differential diagnoss of myo the ossificans in

has be n t rest for at lea t s x months operative removal of the bone is indicated

Paul J R A Study of an Unusual Case of Myo ts Ossificans 1 & S g 9 5 85

shell are ing from the head of the fibula and allowin the perone in rv to t ave e t n a deep g cove Microscope liv t p esented many features of a sel to go t oge c sarcoma or o sifting fit ma of quest ble mal gnancy.

hollo i g the removal of th tumor rec re ce

Eschle A De Quervain s Stenos ng Fibrous
Tendovaghnit s at the Stylod Process of the
Radius (Bett g zu kent s d r st
r b en Tend vag ints am P cess styloideus
r d —de Qura) Schue m d Bech schr
q x 1) 1006

Para afbd n d h 1

them all in one syndrome
The treatment of stenosing tendovaginitis is splitting of the tendon sheath as advi ed by de Quervain The branch of the radial nerve running

trauma may be the exciting factor because of changes in the tendon sheath or the bony bed STERRARY (Z)

Sokoloff N. W. Suppu atlon of the Costal Cartilage in Infectious D. eases (R. pp. nknorp.] tug b. 1 fkt. k. kb. t.) K. n. U. J. 4 n. 36

iy diagnosed at the time of the fit operation a

SURGERY OF THE BONES, JOINTS MUSCLES, TENDONS

CONDITIONS OF THE BONES IGINTS MUSCLES TE IDO IS ETC.

MacGuire C J Jr and McWhorter J E S r come of Bone An Analy is of Fifty Cases A cl S 2 024 17 545

The eases of sarcoma of bone reported in this

terran N w Vorl. City n which th

finitely con firmed

Only ostcogenic tumors of the mahenant type giant cell tumors an I Ewing tumors are summarized The cases are tabulated according to the type of the neoplasm the symptom the treatment and the

results

per cent

If the soft parts are involved amputation i in heated

Ewing a tumor is not yet estable be I as a chaical entity the authors suggest that it be given a descrip ROBERT B TE STEN MD tive name

Bloodgood J G Bone Tumors Myzoma 4 n 5 t 10 4 lxxx 8 7

The author states that all connective tissue

15

my oma and arcoma a e possibilities. Whin the is nearly always pos ible to exclude a bone cy t or grant cell tumor but myxoma chondroma myeloma metastatic tumor and the very rare sarco lata mu t be considered

the character of the tumor At a second operation a

to work. One year later there was no evidence of recurrence

dyle and the \ tay occurred at the external

ar giant ceu tu nors In adults central tumors in lying the ep physes are usually benign grant c ll tumors but chorde ma,

r gard to my roma

demonstrating the operative indications. It is important to differentiate cervical ribs from hyper

trophied transverse processes Remo al of a cervical rib especially of its bead

simplified Disappearance of nerve symptoms has followed imple resection of exuberant transverse processes

In conclusion the author states that as the normal var ation in the size of the processes is very wide care must be taken in ascribing nerve disturbances of obscure origin to cery cal rib or hypertrophied trans verse processes WAL ER C BURKET M D

Finney J M T and Hughson W Spasmod c To ticoll s A S # 1925 1 1 255

nerve 1 located by retracting the sternocleidomas toid muscle and after its identification has been proved by electrical stimulation it is resected. The trunk of the great occupital nerve is carefully followed down and resected below its anastomo is with the suboccinital The suboccipital nerve is cut below its main branches and the third cervical nerve is sec

been abandoned

1

period of twenty years. The surgical technique used during this time was not uniform. However of thirty one patients who have been traced twelve

un 1 saice has be n developed only rec ntly but the results so far obtained with it justi fy its more extended use CHESTE C GUY M D

Cal é J A Local ed Affection of the Spine Suggest ng Ostcochondritis of the Vertebral Body with the Ci nical Aspect of Pott a D a ease J B & J & Surg 925 V1 4

The author reports two cases of spinal di ease with cl n cal symptoms suggesting Pott a disease but in which the relatively ouck re overy without ky phosis or disability made this diagnosi seem in correct

One of the patient was a child 2 / years old with -6

sucver The

The authors operation was developed f om Keen s idea. The advantages claimed for it a e that it offers a ready approach and satisf ctory exposure of the nerve trunks of both s des which are to be

► P P S ed in 1801

The patient is placed face down with his head over the end of the table and an races on the share of an inverted U is made with the curve below the occupital tub rele and extended down alo g th

In the author's opinion the condition described is to the spanal column what Koehler's disease is to the foot CHESTER C SCHNEIDER M D

un ty and compressed

Cases in which too much time has clapsed between An anterior portion of a transverse process com the beginning of the mb involvement and the d vel

mmed

roned Contra indications to operative treatment are pulmonary affections and a poor general condition LOS DER OSTEN SACREN (Z)

Leri, A Some Considerations on Certical Ribs (Quelques cons der tions s r les côles e vicales).

In the embryo each vertebra except the coccy goal has a pair of ribs represented by a small eartilaginous are called a tubercular or dianonbyscal rib which veterds from the tip of the transverse process or diapophysis and forms the body and tuberosity of a true rib In man a secondary cartilaginous center develops between this diapophyseal rib and the

> syndrome from the oculosympathetic fibers or to a lower brached plexus. On the internal surface of the arm fo carm or hand th re is a band i hyp asthe 12 The thenar and hypothenar em nences

II a by the Lay luay

genogram taken at variou angles are of v lue in

pres ion bandages but after a week at the latest

geons did not relieve the tension just above the site of the tendon suture and in Ru f s opinion their method is less effective than the procedure he describes

Gill A B Reconstruction of the Hip Jo nt Atlan

In reconstruction operations on the hip joint the attempt is made to restore the two elements of

Truslow W Metatarsus Primus Varus or Halfux Valeus? J Bo & Jo at Sire 1925

of the first metatarsal and the constant varus post tion of that bone and the lateral bone wedging at its proximal joint. He believes that the condition is an anatomical variation rather than the result of in flammation or the wearing of improper shoe and that the hallux valgus deformity is acquired and a poss bly the result of the varus of the first metatarsal

Faulty shoes and chronic arthriti may also be

causat ve factors In Truslow appinion any operative procedure that does not include the correction of the deformity at its proxim I focus is unscient fic and inadequate Simple cuneiform osteotomy at the metatarso cuneiform joint with redressment of certain second ary changes is adequate and gives permanent re stilts CLESTER C SCHNEIDER M D

SURGERY OF THE BONES JOINTS

MUSCLES TENDONS ETC Ruef H A New M hod f

used at the Lesser Clinic according to the techniqu

The author des ribes a procedure which is being

Care must be taken that the sendon which has been stretched in this man er does not become ad herent to the site of the puncture in the skin but if this occur it can be e sily corrected later under

local anasthesia

mendation of Lienhartz and Salomon These sur

ι resulting tr m improper treatment or lack of bi od supply to the affected parts The procedures

that have been employed to secu e union are (1) f shening of the fr gme t The procedure describ d as has don th recom

ł h

trochantene osteotomy because it cannot fully correct a severe deformity since it is impossible to make an gle 1 th f m

ot only short duration Gill does not recommend the employment of sub

ab orption of the head and neck of the femur Fre quently this results in an adduction flexion deformity with consequent impairment in function In such cases function may be restored by the

unward or ankylosed because of destruction and

1 c 1 J 1025 XXVI 204

MARWEDLL (Z)

518 Pe kins G and Jansen M. The Ettology of Pseudocoxalgia A Critical Survey of the G n genital Theory With a Reply J B & J (51 8 19 5 VII 18 **և** որ ▲ The magn 5 up joint mechani m and the function of the affected part em the hown that a lated gram are presented in wit it t If m a striking contrast to the acetabu thigh on the axis of the t bia. The interconnyl u (1 kb1 k to a kn Joint Dett Emine A interco dal Ch 1924 C T 473 Ł wate

dagnosi of derangement is reg (ded as suit ment serious and permanent harm may be done the patient will continue to have pain disturbance of the function of the knee joint and a loose joint and event

tion is demanded

7 In the different because it training and its 1.

1 In the different because de d'The serial vocaries with mide traumat in an any of the crisility about the Mener was many, should be use early by tenderne s to preserve the fold of the joint a by tenderne s to preserve the fold of the joint a by manifestal and the rectal pury of the crue i light great should be placed at abe late rest with com-

١

callus will yield to body weight therefore care must be taken not to allow walking with an usupported thigh too early. The general textbook teaching in regard to the time required for the usun of various bones is unrehable. While fractures may appear from at the end of a few weeks new bone formation at the ball of a few weeks new bone formation at the ball of the property of the

The mobilization of joints during treatment and the danger of early weight bearing with an unsupnorted thigh and leg re particularly emphasized

In compound fractures inechan cal cleaning of the vound by the extant of all traumatized ussue is this aff at procedure. A complete primary opera to mail usually chimates infection and allow the wound to be closed without dramage. Anti-eptics are of less while. White all dead to use and foreign are of less white and foreign to the process of the process of the process of the process of the soft fagments especially those attached to the soft

In a series of fifty cases treated by the author in the manner described satisfactory results were obtained

Steine W Fractur's of the Tarsal Bones Col

Since fractures of the tarsal bones have been only briefly con ider 1 in the literature the auth r has

jured by active movements the fractures here being usually fleuon and torsion fractur The period of instability averages forty and eight tenths days and the period of treatment somewhat less In 5 5 per cent of the cases deformity results

In the ca es reviewed the treatment consisted chiefly of rest the application of fomentations and after treatment with massage. Plaster and adbessive bandages were employed frequently. Steiner advocates a somewhat more active treatment but uses bandages at 0 in cases without di location. In the deter treatment arch supports are of importance.

A ca e of Ko hler's da ease is reported

HELLER (7)

cases in v hich the blood supply has been impaired cale Six weeks after the original opiration a the Whitman operation has proved to be a sat s others it may be necessary only to remove the fibrous tissue from the original acetabulum and replace th FRACTURES AND DISLOCATIONS GI pel C J The Treatment of Fractures f th La I gas xl 7 R LT 1 ı Both are refashioned and replaced a th tissue inter REDOLER S REIC I M D Miller O L Two Hundred Cases of Paralytic Foot In the author a cases the entire condul r area is Stabilization After tie Method of Il Le J prepared surgically d the tract on calibers are Bo & Jo 15 1 0 5 1 85 Miller is thoroughly convinced that the Hoke t u old naty pretautions are taken th ĸ rı function and appearance f the foot th nany oth r procedure yet devised Since the publicati n of ening must be p e ent d by the u e of a sufficient c

١

The technique of the Hoke operation must be modified to meet the indications in the pa t cul r

523

The author advocated the building of sanatoria along the coast for patients with tuberculosis In

light baths in the winter was emphasized In the discussion of Reyn's paper STRANDGAARD alone This percentage agrees very well with Wis sing s experience

LENDORF stated that the treatment should be both local and general and that occasionally radical operation is also indicated Roentgen therapy te ou res great care as its results are uncertain

BIERING stated that he had traced twenty five patients with tuberculous lymphomata who were treated with the roentgen rays in the period from 1920 to 1922 None of them developed any note

in the Mirult cases ornim

treatment without light baths. In twenty cases there was an appravation of the pulmonary con-I tion. In the majority this was only transient but in ten cases it was more serious. The aggrava tion of the pulmonary condition was observed simul taneou ly with improvement of the extra pulmo nary complications

culosis. He stated that when roentgenotherapy is given it must be borne in mind that the skin of the

be correct-not only in the hyperplastic forms but al o without doubt in the fistulous forms A cure may be only a matter of opinion Joensen empha st ed the fact that roentgenotherapy cures glandular tuberculos's permanently and without untoward

lymphoma had had pulmonary tuberculosis but that he never observed any aggravation of the lung condition

STRANDGAARD stated that most of his patients had

v rv n n l

ranugaaru's material included numerous serious cases but these are the very ones that ought to show the good effect of

An g roo pat ents with pulmonary and larvngeal tube culosis there were eight who had hemoptys s befo e the t atment Du mg the treat m nt only two had hæmo hages and both of these were amo g the eight who had hamoptass pre viously

held the opinion that some of the lymphomata can be operated upon with excellent results

PALLI N (7)

SURGERY OF THE BLOOD AND LYMPH SYSTEMS

RLOOD VESSELS

Chute A L. Injury to the Vena Cara During Nephrectomy J & 1 2025 1 1 43

Chuter boris! or cases of mury to they na casa lumpg difficult nephre tomy I'mo of the patt nes hel tithin twenty four hours or thel my ral week after the operation from an acute infection an i one recovered

In reviewing the I terature Chute foun I that se

LYMPH VESSELS AND GLANDS

Reyn A Roento n and Light Treatment of Tuberculous Lymph mata (Ro to n adle ht heh add no the scalors n Lymph u n) II s I d 19 4 levs 96 374 385 4 5 Roents a and Light Treatment of

In a paper read before the medical society of Corenbagen Revn stated that d r ng the peri l

COMMINICAL MINICAL MARKET STATE OF I

pe tejt olien with r in forerf a f toler; ut une a se

number of very serious cases to which the cond tion

with the 14th paths sie t 1 a treate i with the roentgen rays stor only 40 per cent recove ed In the author's ore non the carbon are light baths are the best

Revo called attention to the fact that roent genotherapy has a very injunous effect upon the

heat to leave the clamps in place for at lea t seven RECORD TRANSFESSOR

CHOERT I THE MESS WILL

lavs Fiar

ment

mém Soc méd d hôp à 1 043

are or ly one tenth as tor c as sodium critate

a ly by local treatment with ti o carbon are I shi

cretions of the larger domestic animal and the fact that Res once obtained a pure culture of tetamis bacilli from the lower leum and excum of man the authors systematically examined the faces of patients not six with tetamis who in their occupations had come into close contact with domestic animals and the soil

The test stool were obtained immediately after the patient's admission to the clinic in order that any influence of the hospital dietary might be ex

Cluded
Bacili and spores were demonstrated microscopically and by animal experiments. In fifty cases teta

fection can open the way for the entrance of tetanus bacilli into the blood stream

In conclusion the author cites a clinical case of

In conclusion the author cites a clinical case of sepsis with symptoms of tetanus just before death IANCKE (Z)

ANÆSTHESIA

Rae like Com Com m di

2230

In the case reported that of a 15 year old boy plexus anæsthesia was induced by Haertel's method with 20 c cm of a 1 / per cent novocain solution

ous injections of antitoxin was demonstrable. A

town

Alkaline gastric juice had no effect but bile and pancreatic juice favored the growth of the or ganisms and the formation of toxin

In the experimental animals disease did not fol-

TOELKEN (Z)

SURGICAL TECHNIOUE

OPERATIVE SURGERY AND TECHNIQUE POSTOPERATIVE TREATMENT

Gae

Untreated patients rarely develop postoperative

que tiy also after local anæsthe 12 th n after general anæsthesia DENVIS W Cama M D

ı

the anatomical systems involved do not seem to

ANTISPPTIC SURGERY TREATMENT OF WOUNDS AND INFECTIONS Black K 1 A Ne & P int in Sterili ing Methods
B 1 M J 1925 21

A do e or two of arsphenamia preparatory to opera

reduce the operative risk to the minimum. The older patient presents a general medical problem clinical investigation not only of the presenting symptoms but also of the patient as a whole is in dicated. It is probable that the damage due to syphilis is more extensive than a casual examination appears to indicate The cardiovascular and nervous systems are apt to sustain the brunt of the in fection

Featherstone H An Inquiry into the Caus tion of Postoperative Pneumonia B / J Si e o s x 487

ili health this power is e se

Another factor predisposing to postope ative

Proceeding from the well known fact that t tanus pneumon a is the secondary immob lization of the bacilli a e f quently present in the testinal exc

.

there are thrown into the blood other products of nuclear destruction viz un acid and a number of punne bases. The e cause an alkalo 1 in the blood After large do es and a marked alkalo is a salt

Doub II P Bolliger A and Hartman F W Immediate Metab lie D sturbances Following De p Roentgen Ray Therapy Am J R e 1 1 9 5 54

The authors studied the blood of twenty three patients after irrad ation and supplemented this by e periments on dogs. The dog were given large

Ether anar thes a morphine glucose and calcium salts protect the cell against salt action by deeres ing its permeability. These were found at 0 to counter act the effect of radiation. When calcium lactate was given before treatment the acute schenes was very slight. When it was given after treatment it releved the nameas and vorming. Two dogs thus and weight which bad received the same dosage but no calcium, deep.

ì

stroy d in this easly period. With the pho phorus

CHARLE H HEACOCK M D

PHYSICOCHEMICAL METHODS IN SURGERY

ROENTGENOLOGY

Porter C A The Surgical Treatment of Roenteen

CRARLES II STEAMER ALD

Case J T Radiat in Therapy of Mal grant Di

LORTER classifies the lesions resulting from the roentken rays int three groups I Lesions resulting from a single massive dose

or a few exposures at short intervals 2 Le tons due to many exposures over a long

penod of time

have declare I the use of these agencie to b the first rational treatment of cancer ever devised othe s condemn it

period intervenes

Marks teports two cases in which the lesions did not appear until three and four years after the last obtained first for pathol gical study and fut re reference. The danger of removing such a specimen is not great

later

From the pathological studies of Wolbach and others it is evident that the deep skin and subcutaneous tissues bear the brunt of the injury. Th resulting permanent endarteritis obl teration of the lymphatics and deep a at tissue extlain the latent period and the more superticial manifestationsdermating ulcerations keratoses and fibrosis

the roeatgen rays for a perficial mabginant I sions and reserves hal mited supply of ralium for deeper cancers

71 10

dar a te

ι

.

and often discourages careful gro s examination. Ening depend entirely upon gross examination in diagnosing mammary carcinoma and nakes fewer errors than with the frozen section method in the diagnosis of hone tumors neetigenegraphy has become an indispen able and which is more stats factory than a study of a piece of the tumor tissue.

The indications for hiopsy are in inverse ratio

Massage of a malignant tumor increases its growth and hastens the development of metastasi. This has been definitely proved by both animal experimentating and chincal observation.

The death point of a given tumor when exposed to tradiation and heat is constant over a long time and is reached at approximately five human sin exphema doses. The beneficial effect of tirradiation is not due to the closure of the lymphatus of the region exposed. Neither is there any proof that it is due to an active destructive action of the body it sue either local or general.

curettage

The differential diagnosis between tumors can often be made from the results of irradiation therap; as some neoplasms regress very rapidly while others

niast on on --

muculation How v

transplant t

Wood states that the methods and condit ons

h m-

Gastric carcinoma may develop in young persons especially in those with a long history of ulcer with

and laboratory examinations seem to exclude the Presence of other d seases as a cause of a foss of

Begative

As the et et a

os in cancer will consult physicians at the first evidence of the dease Cyril J Clarel MD

Engm n M F External Cancer J im M 1 1 19 5 l xx 201

١.

MISCELLANEOUS

CLINICAL ENTITIES—GENERAL PHYSIO LOGICAL CONDITIONS

Handley W. S. Lupus in Its Surgical Aspects
A Surg 19 5 1 x 9
Lupus is a nodular disease determined by the

water and certain parts whose development is the pendent on the growth of the skeleton also fail to appear

lymphatic areas

associated a rue results & a w

wine reumsembe the
Frees on
one It is
of subcu

1 7 8

of the owerse

t mak tar s

cet fibit to deh it

Ewing J Th D ag osts of Cancer J At M 4s ors I am Thoo 6 F G The Experimental Pathology of Cancer J Am M A 925 ISSEV 4 Donham J D The Potato to View of the Internist in the Study of Cancer J Am M A 1923 Is 19 8

already present
The visibly infected him must be circumserihed
by a ring incision
Morris II hair MD

Child C M Quantitative Factors in the Sascep tibility of Living Gells to External Agents B d olegy 0 3 v 22

The suscept bility of certain o gans and parts of the mammal an body to many ext mal ag ats is apparently highly specife. With reg rd to the ef

528

and often discourages careful gross examination

Massage of a malignant tumor increases its growth and hastens the development of metastasis This has been definitely proved by both animal experimenta tion and climical observation

factors than a study of a piece of the tumor

tissue The indications for biopsy are in inverse ratio to the skill and experience of the pathologi t and

either local or general eth nm

DUNHAM emphasizes the need for complete his tories in the examination of patients the patient

curettage

1 4

The differential diagnosis between tumors can of the subject

a lymphocytoma a reticulum cell lymphosarcoma leukæmia pseudoleukæmia a melanoma an ana very valuable diagnostic aids

A presumptive diagnosis of cancer of the stomach is made then a comprehensive history and physical and laborators examinations seem to exclude the presence of other diseases as a cause of a loss of

negative As the exact cause of gastric malignancy is still uncertain efforts should be directed against the apparent factors in its causation. Dietary pre-

established tumor 1 satisfactory immunity has never been de eloped. The trained worker in bacFigm n M F Extensi Cancer J Am 1f 1 o class

Cancers of the skin are usually classifie I according to the type or genes of the r component cells into () basal cell cancer or rodent ulcer (2) prickle or squamous cell cancer (3) m l noma or nævocar cmoma (4) P get s d sease o the dyskeratosi of Darier There are al o tumors which are not char

h i i ii ii ii in the extrama

In the extramammary type of Paget s dis se the patch may be my taken for a chronic seborrhore

tasize but may do so when lymph channels are opened by secondary inflammation

Prickle or squamous cell cancer is a tranmatic can

Judd E S Th Surgical Treatment of Cancer
J im if iss 1025 lexts 10

In the author's discussion of the surgical treat reat of cancer he emphasi es particularly the so called premal gnant lessons and ment of a leuco

Melanoma 1 it 40 c oma) may spring from pigmented moles of from a

c cer develops

flui 1

f m gatet

,

n o n by the secon Lass &c

tis beginning regardless of treatment. This uncertainty to study certain cases of ep

completely r moved at the time of the operations

Herady as is an inese cases of mighty centre

Surgery has done more for persons uffering from cancer than all other methods of treatment combined although its results are some 1 at discourag inj. Cases should not be considered hopeless until a arcful estimate has been made of the grade of

Mayo W J The Relative Values of Surgery and Radiotherapy M n old Med Goc 31 7

malignancs and of all other factors

Radiotherapy Mn old Med 925 11 7

from three to five years must have elapsed ince operation to make it possible to estimate the per ceitag of cures

Cancer consists wholly of the parasitic cancer cell.

The body treats the malignant cell like a for eigh body. Connects a tissue is through out around

stranger than fiction

Modern operative procedures remove not only do sea e! tissue but also the paths by which make nant cell reach locations beyond the p many locu Or cration removes in a block the hopp nodes adjacent to the growth Although radiotherapy

planned p h s b en a Bowing fredwha " er is in these fases of bibblic centrial

Radium I as had its greatest triumph in the treat

have an especially marked effect on the poorly nourished embryonic cell while the sound tissues such as the preters are little affected by it. On the

Must that these cases were advanced and beyond

.

Designating calls attention to the fact that late surgical invasion into certain cancerous fields which have been greatly benefited by radiotherapy is associated with the risk of initiating a rapid extension of the decage. In this connection Bowing also

beneficial effect. Blood from rabbits which received the unit dose of acriflavine (25 mgm per kilo gram of body we ght) did not show any inhibiting power on str ptococcus cultures Inhibition was noted only when ten times the unit dose (six times the advised climical dose) was given and even then was arregular Serum to which dye was added in Lnown conceptration caused inhibition in dilutions

GENERAL BACTERIAL MYCOTIC AND PROTOZOAN INFECTIONS

> m 47 and Dan Zau. The Action of

> > it periments on rabbits to

ha tan pout situ The kely that

prostrated racuusi a no change The co rd or not

when the concentration o at its height and was supposedly producing its most

dan ce

Rabb as given comman lethal doses of strepto coccus culture were not benefited by atrifavine given intravenously and died sooner than controls which were given no aeriflavine. The only surviving rabbit was one that had received no dye at all

The authors con lude that the die does not have a beneficial effe t actually bands ups the animal in reasting disease and couses renal and bepatie M L MASON MD

changes

BIBLIOGRAPHY of CURRENT LITERATURE

NOTE —THE BOLD FACE FIGURES IN BRACKETS AT THE RIGHT OF A REFERENCE INDICATE THE FAGE OF THIS ISSUE ON WHICH AN ABSTRACT OF THE ARTICLE REFERENCE TO MAY BE FOUND

SURGERY OF THE HEAD AND NECK

Head

Craniotomy under local asthesia C A Exarko.
An S g g f 17xxx 3
A new nd simple method of opera: f r peneram 1 sin a W Supplorr D utache Zt chr f Chr 1794
ctxxxx 195

C emous opt c atrophy and its rel tr n to glaucoma R PICKARP P Oc Roy Soc Med Lond 1925 x n Sect Ophth 5 Tra matic pulsating evophthalmos I D KRISKAL Am J Ophth 19 5 3 5 Viu 4

Am J Ophth 19 5 35 vii 4
Miners prostagmus its dagnosis and origin A F
Fe cas Proc Roy Soc M d Lond 925 vii Sect
Ophth 7

1 1

m s 10 5 km 50
The tre tra t of b sal fibroid (of th n s) by m ns i roentg ys E Scheme Z ntraibl f Chir 924
I 423

Ophth 1925 1 40

A new t eatment for unde eloped lower j w W T
Colonius J Am M Ass 925 ltx 19 4 9
Th techn f nero

ì.

19 5 in ? The term tofg n shor lophthalm by injectio s ofm Re J T Hooker U S Nav iM Bull 925 4 set Bland from the theta is ad e Soys anusca L Wattrz Boston W & S J 935 czc 64 4873

Eye - - u v

Soc 925 x 63
B so th y P DUN Med J & R c 19 5 cxx

13
Congenital tes fall l hymal punct with ab
s c fsal rygl ds F B BLACKMAR Am J Oohth

J s c fsal rygl ds F B BLACKMAR Am J Ophth 19 5 3 3 11 39

tn lor ph t g phy of th y (life siz) B Clavasse Brit J Ophth 925 ix 66 Phys th

J OP 95 35 97
The for litt timent is meal disease F P CALBOLN
Am J Ophthe 973 3 173
The path is pup if ry tell t i ght and its fun tional
alt ration M Marquez P g delactin Madrid 974
EXPUS 90

Tockes icng tal blepb rophimos s R Ford Proc Roy Soc Med Lond 9 S 1 Sect. Ophth 15 Them Pari The utta dung beam of the aqu sflud B Gra 75 Am J Ophth 925 3 m 8 [473 In p nt catara t G F Harriers J Iowa Sat 4 Sec 925 x 9 Am J Ophth. 1 2 5 32 [473 ox and E or and E or and E or and E

N S ...

larr qu r's 5 ur 57 points out the necessity for caution in deciding to operate on primarily inoperable growths whi h have been greatly benefited by radium because of the

rious performance

In conclusion the author states that when radio. therapy is given by a min of nide experience assocrated with an expert need surg on and a competent pathologist it has great value

GENERAL BACTERIAL MYCOTIC AND PROTOZOAN INFECTIONS

far to25 | xxx 3:17

The authors carried out experiment on rabbits to

กัวของสะ

Rabbi a given gummal lethal doses of strepto coccus culture were not b nefited by acriffavine given intravenously and died moner than controls

estimate The only surviving

affected at all

A temporary inhibition of motifity and activity of the leuco ytes occurred only following an injection of from five to ten times the unit dose of the

changes

A sui se

The Warm, ction t nsill ctomy— it worth whil?

I'W BAILEY Latyng scop 925 xxv 161

A new tons book N Fox Laty g scope 1925 xx.

report of 500 co sec to et as flect mes in the red m f h blood f hem rih

Ad noma of the thyroid R R MODEREN Med I & Rec 925 Ctx 6 Aberrant gotter F H LARRY Surg Clin N Am 1024 IV 14 S HCC D

ł į H g I L L Im 925 v 189 B sedo s dis se M Cornon Med Ism s 92 I

48_

924 17 1443 . .

The transmitted the eyes in phth line green E B Deventy Song Clin N \m 0 4 1 430 U S \available 1 A and 1 A an

M B Il 925 n 48
I ine and gotter S McGutter South M J 195 231 87 I d e in the treatment f g iter W A PLUMBER

P Im anylgate as methyrod m I H LAHEY Surg CI \ 4m 0 4 1 1373

M 75 9 4 4/5

Larging Ip talys s nd s rgery I the thyr id D C GF 11 // LE.

493

BINC IER

Epitte cysts 1 and cy J II Para, South M J 38 Intri type ig the with portice s D f
trai ov T sSt 1 M 9 5 547
case ip pill ma i th laryn i I Clemensov Proc h 3 Soc Wed Lo d 9 5 x

3 See et 20 29 5 xvii Sect Laryn

oslatu s gina 4 4 Covran Nebr ka State M Vince t J 925 x 48

1 11 Neck

50

Myrodiu tini p gn 3 Il Knatts Ze tralla (y ek 024 lu 33 | 1478] Hypothyrod m d t rel ti n hip to hl te em I M NA tELD nd I W GREEN J Nich

g Stt M Soc o w o

≠al pa 14781 oski 05

P KIM

J C ODer Md J & Rec 925 The tre time t I do me to feth thyrod I II
AH Seg Cl Vin 94 305
Ad m Ith the rod V Victor Colima & West Med 925 xm 1 6

An until d uture in ye perations p rts illarly e t rs t C Bere Am J Ophth 925 32 1 12 Col rise se fith satisa to erb rd C A. 14000 Am J Ophth 1925 3 8 vm 120 Fot naleyest in-ts diagnoss mea rement and c rect n I C LAG a or Med Herald 1923 at v

An opti aliliu on BI Haymorvinamis BiJ Ophth 025 1x 63

an timy dagn a path logy and progn s focular desc R Vov Dra Heydr Am I Onhth so c is

The spe isl ulnerablit I the macul r idees a d spa ng I th macul II VI FRAQLARE Birt I Ophth 19 5 18 53

XX. | 3412 An t n P ff haphen me with a s gr stio on it pos ble el 1 limpo ta ce IL Garn bars Brit J Or hith 925 + 63

The phys I gy I th I han th I G Wats W Arch

Otol Ong 1 1925 1 221
The n ture of the impulse which affects the n t ampull n I the sem incular n I I Nov a J

OG

H The mac with me get ithe home fly dis-homoger Mill kames Am Jeg 10 281

40

Nose and Sinuses

Acae of page int dhe ny navus of the se with pheneded hey and warte navus fith the k and in hiple sure of cour JAky Canadian M The pists repast of saddlessed in the by an toso c til gin graft C B CAMERER U S ha l R port of cas of n salfbrom f unle te t L

Mouth

1 ,

was.

Sect Laryng 1 8 Luguel abscess R A Bistow Both M & S I 9 5 CCR 353
RIffth pain fr m arci ma t the m to and beek f C Grave Ann Surg 19 5 1 vsi 404

Pharyn

The problem fith tonsil nd to lig d fun t Mi H LAMEN Md Time 951 38

of m sele fibers exp rum atal ev 1 ce J I HUNTER Brt M J 925 1 5 Lect res on the sympathet c in re t n of st inted muscle Lect re II P t II Th functions of the t groups f muscle fibers experimental e dence J I

Miscellaneous

1 g a pr puy act injet n of nit tel us crum death si teen days fite the injet n Morrenau Be teu via d Fagar Bill et mem See med d hot de Promed d hop de Par 10 4 1 1 406

SURGERY OF THE CHEST

Chest Wall and Breast

Hist logical character it ca of the bre it ind the nipple tyn ga E Brack Arch f Cynak o 1

The hrm 1 ct n f the plents pon the b t gl ds E Prills Zntralbl (Cynnek 94 vl)

Doe m it it it d g to th nursing child O JENS N D ert tio Kiel 024 Chrone Mastis at rm if li ya dithe da g Chron c Mast ts at rm fits I I g Str G L CHEATLE Brit M J o s [483] Ł

The centg st dy f the rp ssages M Scalitzer ad W Stormer Γ tsch d G b d Roentgen trahlen Q 4 XX 1 217

Jul 1 4 4 Ductur 024 4 s 1 746

Trachea Lunes and Pleura

I stp t mas lipe fth lg W J M Scorr Arch S g Q 5 73

I d tonsf the copia ty a pulm ry tube I is J B AMBERSON JR Med J & R c 9 5 ct 1 37 1487

R

9 4 3 8 1 67 The differ t I diagn is of c tain chronic lung les in FSB ELL Am J Roenig nol 6

T trest gf gn body ses M E Neuway

Laryngous pe 925 xxx 57
I ega bod s id t l ng. th l gs ly
of 7 cases E G Gill Laryng se pe 95 xx.
A bio hescop c f creps t b ll ma bles bed and th rhard gl b i robject (Ticken dl H Carer Laryagosc pe 925 xx 75

Ariné ai peum thorax f cut lu galscess E K G ra Vinnesota Vied 95 vu 09

The tep rt of a case I laryn cal propose in a printent with carri una of the Istynt Sin J Driving Can't Pro. hay Set Med Lond 1995 a Set Laying got 8 Laryns stomy for laryng alaten s G Tick & Joch Otofary ngot 1925 1 157

tom f I vo + flogra on

SURGERY OF THE NERVOUS SYSTEM

Brain and les Coverines Cranisi Verses herhous and mental tat I n une nome a to the

The I t fbi th traums on the brain and the locate - 4 11 h h 200 2 4

Sections of the se sup n t I the top mi In ne t th pos it I Danny Butt I ha it plas it p * 12

I ANDOUT HET REAL OF IL

Spinal Cord a d Its Coverings

se se of m ungat a f il wans lumbar puncture armes ton r co ery C P S plans Ing et pars estu

thew m thou of d g sin c rtain d sea I the sp lc rl seport leave) Ro Etr) hm M has 1916 1 2x V 425

The roll the pale of laminest my rm al C Eles en Sun Clark ham 20 2 45 - 50

TWEEL

Periph ral Verres

functive les turbances l'the bra b l'pleros PA

MdI tr s

5 8 111 setÖthp s h has had aleeut Mirelon

of

So Hateral nutries of the intervented dubl page to Michies is middled (1972) 24 xx 338 The heaps of a terriphere is reported to the first terriphere is reported to the Communication of the Communica the time to the day of all for he tion the term and the tion there cal my se comprehent a hespeut preum thora. L Executage Frog d is fin il deil 9 s

xx n 933 1 ew are of holya unto see addry to antit tan um So Que Lacore and T are Boller mem

See med d hop de Pa p 4 1 xl 676

Sympatheti N ves

The symp themen in year in bea hand discussed them is fully discussed of the sympton in an one of singled Lectures on the year full man in one of singled musch Lett ell Part L Ib fur t usof the two groups

15 7 191 354 f aborts of the beam C

Co cerning the adden not I amply to an im-tumore Chinary nin I have turn the tie I 3 925 x 1 55

n m P # 1 4 5 1 Two primary turn is I the gas man gangl

7 Am 11 Ass 1025 back a 3

rt 49 e ounde t litte-1 Med

d treat LD SR I roc

Ros Son Service of the profession of the services and Rosingen graphy 1 the profession of the services and I have been serviced as I have been service Ophib 025 35 1 105 C Gz T Med f & Rec 1925 CXXI Ob

```
....
9 5 54
```

Gastro Intestinal Tract

Som eff i of d turbance of phy ology f mo em nts fg stro-intesti al t h A F Mirrs Med J Au t l 1951 7

A new treatment f l r f th st ma h 1 ZAIN D utsche med Webnsch 1924 1 52

The surpical treatment of chon c pepti ulcer J H

1 of gastro-int tinal cond t no JA LICHTY ton Cln Med to 5 in 460

 $p_{\mathbf{F}}$

Ř f t chrom sc py P Destres and J Gorant Bru lles med 9 5 4 5

14 1 Th end

Ulce care om 1th t mach Il II STERER \ ch f kl n Cher 1924 x 7 G tree c r treated by pyl rect my and ga tro-t ost my C L (CHARMAN d 5 F DUFF B t

d 1 19 5 6 Limits plate Birch Arch in d belg 924 lx Acse floom fth tm h H N memacher Ze tribl f Ch q 4 1 683

T tment of test | prolapse H SCHOTTER d M L vebuch M nch a med Wchnschr 924 l x 1358
The tol gy of ol ul B W sve Zent lbl f
Ch 921 l 2 9
Acase a wh b path l gicals cul f the large and mall

111 E ** " ...

45

\cut ham t e i m læn I SELERE. La C ! 19 5 cc m 63
V 1 tn fthel t gofth tom ha dd od m
F Heywa v Z traibi f Ch 9 4 1 240

C utery pneumettomy I rich n s pourat file I no at nort I two two ses F & Granger Soch Sur 1025 X 30# 14571 Primary tum ra of the ling I Dear see Ach Sun.

19 5 2 44)
The effect I bronch t o s upon the ro stg n y

The t time t of catronal ting of the ersoph rstor nun stri g r t ogra le d lat t n with the a th a bor G TELKER J Med Soc N J rse 10 € Xtrl €6

Cong a tal except gal t no is bo e the ca di c n f a wm thod of urgical te tim at A. A Strates and J H Here J Am M Ass 10 5 Jun 5 1 Antethora 1 are ph goplasty T Roysing Ann Su g 10 2 per 1 21

10 5 xl 50
Latent hion compy m M & Rabi G vitz Med 1

& Rec 1925 exx 18 I te lobar pleur v on the I ft de with tuberculos s f th right! no treated by art fice I pn um th ra I Rist nd f Courano Bull et mem we me I d ha d Par 924 15 1 220

Heart and Pericardi m

10 4 1 61 1993 1 St
Diston is seasonstown a pilot eteatment
1 oma of the cropbing in Pi Vins via dif J
N Scor Jim N As orgivi 658
wis trum miter thoppication foliath my to the
cropbingus AJW tour Proc Ry Soc Med Land
garan St Large Rit

to's Exxiv Sor Purulent p eumococc c per c rd ts pen a di tomy re cov ry A J HALL a d V TOWNROW B t M J to 4 1 1148

Esophagus and Medi atlnum

The port f case of an u u lpo t and typing in the ersoph gus I P \$1550 R 1 Lgy So-call didnor the ditat I the resoph gu P N

Sittle Ann Surg of he st 50 470
Aca e of cest plag I stin to C M Fl ns J R v
Army M Corp 10 5 sl 5

3 Am. 05 217

M scellaneo s

Am 95 1235 Rem is a the pot bill of plant by that In Chi Cik Bat M J 925 343 N Am o s

SURGERY OF THE ABDOVIEN

5

.

Abdominal Wall and Perit neum

1 1 5 RICIY I tem t 1

BRIAND re Cl N

VI d Ass 0 5 Ceo er

D son ad f the bal m at all hype troph 1 m cle a 1 La with Mig chen med Wichn h g 1 L n €c# 1304 5 hpc t elfi nssm lungacut ntrapent el 547 [491]

th 4911 Act g mi pentatiad t Hexpley But J Surg 925 x 4? 1491) nd tpntmt

26

Reco traction fisheblep gesatth e pense fith gall bladder during the e tin tin fin den mi f the h p t c duct | Layro Diaz Sem n m d 19 4 Rec t bservati s n the physiology f the gall oldd a conn tin with dion req ng surgical lef J A Biello U S Na al M B ll 925 v bl dd I luce them reh ! C ! DRUFCS, Am CI 3600 MIER IM æm h lal FEIL Kentucky M J 50C 9 5 925 X III 00 Ob ers t a th ual ed fall bi dder by the Sypil fil us a d rectum C J Datrek Mel

J&Rec 915 c 1 97

Liver Galt Bladder Panc cas and Spicen Lierfuncti tet F W Bac Had A R Bens HFIM S g Clin V Am 05 5 The role If the It sts in the tudy f d se se I L G ROWNTREE Med Cl N Am o S

The 1 e of the Van de Bigh acts th 1 the study four M Cowen ad SO Cowen Met J At 1 0 5 77
The true d F W Back IT E d V R Bern LEW Sig Chin N Am 925 v 23

The rary of 14 d I B DEALE 5 rg 015 IXXX 257 If t t bere ! a More Re méd d Unu E Y 9 4 353

10 ALEY

A ch

lı 565

Sw Doden it but did se se fith bull pages with some mprter tgat of a militet HB ER Mittad Cnzglod Molu Ch H B ER 94 t 64 A tatel I t dy 1888 c fbl:ry tr t dise se N Be work B B J h H pk s H p B ft 928 Itmlbirgftl CS Jone dl C Brenes \text{Step of 1} \text{ \text

35

Bru ll s-méd 925

Keniu ky M J 9 5 97 The F schet t st in ch lecy t t s J D Carvin J Am M A 19 5 lvvvi 492

Ch l cyst I my for hypers d ty C DE TARATS w BA CROPT 4 . (1 % Am

Cam ...

Ch lecy timy b lecyst t my L W FRANK Chlysteimy A W CREEN S & Cl V 1m 9.5 1th bd mal to with t drang fte b let t tmy O B ASTOFF Z tr lbl f Ch 9 4

55 5

Against tridget post this type of the law of page 1. The law of page 1 tis tv eat 1 c dibile sec t A BA LER \rch I t 925 Me I A tepn tu SRB Movies An Sg

B night tumors of the ini stin I tract E Bouvier Arch f klin Chr 0 4 CEXX 163

Intestinal form orb ges fter kidney perations - the rche

Brt M J 1925 i 355 Two cases of kn t f rm tion f th small intests T RYTKO LAE Finska lek with handl 9 f l vr [498]

As ga of lu in the differe tial diagnosis i ileus E Gold Mith. a d Grenzg b d Med u Chir. 9 4

A case of milt pl perfrat o s of the small intestane s th t suit of n intussuscept n fleus cured by spo tane s nfolding E Becken Bitr & khin Ch 1924 tann

Intestinal obstruction from gall atones case sepore L FRANK Re tucky M J 1935 xx 67 ing intus s.

Be gn tum rs of the small I test e c ing intus sception II S Brack I So th C rolin M Ass ro s 331 37 Exploratory laparotomy lymphosase m of the sm ll intestin E Brea Surg Cl N Am 9 3 v 93

Distation I the duod m sec ad ry to g stro-

Ass J 1975 x S2

Th relati of the app nd to th right kidney and uret r H A R LECTRIANN Ann Surg 1925 Exxi Glycosuma and prunt d pende t upon l t t d sease

n - - -

of the appendix W.S.Fr. WICK Lis ret 1935 xxxv 279
Appe d'ettis J. L. Faure. Pre se méd Pr 194 mo toni The anatomy of the appendix as related to cut and chronic appendicts. G. M. CEARR J. I wa State M.

Soc 925 zv 69
Appe dicitis and lesio complicating its diagnosi de dictions from X ray examin it in S B Critis R di I

ogy 925 i 107
The mechanic lifact in the c sation of appe d citis
E. J. L. Joves Evans. Practition of 1925 cm. 6

5 33 The duodenogram J Buckstein J Am M ha 19 5 IV 310 Duodenal ul e

Duodenal ul e n nat m c l study H E ROBERT son and E H Hangt Med Clin N Am 925 u 1065 Sponta cou h ling of chron c duod n i a d g stro-11 nalulcer G B Ecsternan M d Clin N Am 19 5

The niche as the roentgen s gn f duod palul er a report of it; we case a sample m thad to d in its is alignment of JS blandown R d l gy so 5 1 03. The tree im t of duod nal ale is S McGotne Vir

o S true 65 The clinical importance of chronic changes in the p-

pendix, F W Warrz Am J Roentge of o the ten t i ppendi St tutteal co d rate

CUS C B HOERARCKE Arch I blan Chr 94 CHT P lyp of the appendix estud rous H J LANDEN BERG

Adhes no of the loun the result of ppenders

Oper t treatment of find fth re turn A Frank Ze traible f Chir 9 4 h 2 33

ie ie is bi rei

a I ¹⁵ Cincleid csofhæm rhod CJD##FCs. Am Vid 195 xxvii5_

78
78
1 th d tum C J D tree, M t
J & R c 915 1 197
Liver Call Bladder Pancrens and Spleen

It if not need I W Bac or rank R B R
Nutur S g Clin Vun o g .
The role if ret naite to an the tudy of In axes of
The role if ret naite to an the tudy of In axes of
The role if the ret naive in
Th gry flund JBDLARE than the graph of the first state of the state of

inn Atex A h

U od al at bati dde se f th llep ges with smecking at en tgat s i malpiten With smecking at en tgat s i malpiten U was by was by Janu 1 the of MSS case the fry trout d

R nstruct n fthe bl passag t the e pense of the g ll blad du mg the e tripati n f an ad ma of the hepatic d et J Leyro Dí 2 Semana m d 1924 vxxi

Recent ob rv tions on the physiol gy of the gall bladder in connect on with cindit is equiring 5 gical relef J A Biello U S Na al M Bull 10 5 x

ъ -

Of t m on the 1 d gall blaid r by the

The Foundatist's bleepsis JD Gir i J

BANCROFT S rg Cln N Am 025 20
The early d sgn of gall st e 1 E M Woolp
Prot1 95 6 8

Som m mm -ym Bull

k

ati
9.4 la /9.5
Ch les it my hole yet tomy L W Fra k
Actic Ly W I 9.5 xx 7.2
Ch l yet I my N W Capen Surg Cl N Am
22c S

Cl of the abd m lasty without d ? aft h leep tel my O lisk 570 sp Zentr lbl f Chir 9 4 2 565

th open to the first open the control of the control open to the c

etc] and ble et s 4 B ster \ch \lnt
M d 95 6,
t t p h att Sir B Mov m \nn S g
95 lex 3 | 1500

```
Benign tumors et the nie tmai tra t. E. Pouvie
                                                                           or D week Clin Med. 19 5 xxx 96
Arch I kim Chr 1924 cxxx 163
           I hemorrhages after kidney operats as and
                                                   -- the
                                                       gcút
                                                                  .
                                                       Re +
  two cases of knot format n of the aman in stin
I RYTKORLAE Finska let sællak handt 1924 favi
635
  A sign of v lue in the differential diagnos a sileu F
GOLD Mit a d Gren r b d M d w Chi 1024
XXXVII 78
  A case of mult pl pe to at me of the small meetine a
there It of a minesuse of an uncured by sponta con unfold g L Breken Beite z klin Ch 19 4 cass
                                          m case resort
                                                               Ass 3 19 5 4

The relate n of the appendix t the right kin y a d meter II 1 R Karturaneny ton 50 g 9 5 km
×× 37
                               - h a tento of the small
                                                               TATE OUT
                                                               The anatomy of the prendix as relat it to neut of chrome appendicity 6 31 (gass ) I lowe tut M
                                                               Soc 1935 x bo
                                                                  Appendicitie and lessons compt atme ste de guosa de
                                                               ducts as from Y ray examination a to Cornas Ram b
                                                                P) 1035 W 107
                                                                                                            I append gitta
The duod ogram J Buckstein J hm 1 13
laxsiv 3 b

Duodenal olcer an anat mical study H F Roserar
sovand? Il linaris Med Clin h Am ore viu 1065
Spot taneous heal ng of chronic duod nal and fastro-
) junal l er G B kratkanan Med Chin h Am 1915
                                                       . 6
                                                                tors lex beo
                                                                  The class al importance of thro is changes in the ap-
                                                               sends F W Warre Am J Rota genol 1925 Mil
                                                                                                                     1981
                                                               Statest al considerat in on the tie iment of appenditus C B Housey as Arch f kin Chi 1974 exer
g steadyouer with
                   mini f Chir 1924 1 35 4
                                                      11 4
                                                               677
                                                                                     for ermit true If I VANDAN BER
                                                     s 30Ch
                                                                                                                    stru
                                                    e at az
                                                                                                                    of the
                                                     Carra
any 14
                                                                                                                     923
1925
   tithe one of the four the re ult of appendicion
                                                                EV 483
                                                                 Traum te ropt r f the t m ato th
                                                                                                                    1 12
                                                                                                          Md Lond
                                                                a thy II DECKE NO Po P
                                                          ď
                                                         1D
                                                  from sp-
                                                 urg Chin
```

dum tr tment of uterine c remoma. I BELUGIA Zentr lbl f Cyn ek 19 4 1 1970

Adneral and Perinterine Conditions

I'p me tal tud s upon the tra t me implanta t n f the o ary a m thod l sto ng the abil ty to F BENESCH and R Ko HLER Ze t Ibl f Gynaek 10 4 l 5 3 J Novak Zentralbl f A thropathi a anp 8 Multilocula p p llary cysts K EMERSON Boston M

&SJ 95c u or 11

П

1 1

Am lignant d theloma f the pe th 1 m type in the ry E F Sci Mitz Am J Ob t & Gynec o s 1 1 47 I flamm t ry ad 1 tum and ea ly cinoma P WOLFF Mo atss h f G b rtsh u Gy ek aza l m

The 1t nhipbt the hydrid mit deh

T cases f pol ted tors f the fall plan t be G SCHW ZWAELLER Zint lbl f Gyn ek 19 4 11

O eptie " th yat en-case a dner I unflate mat S GOLDSCHWIDT M hen m d W hasel 94 lt 7 I fo at n f th po lp foll wang p t perated upon t leh u ft th o set REEB B II

ube S

A new procedure for salpingectomy with hig me to pero L GLALBE TO Rev fra c d gynéc et d bst 9 4 12 601

Blateral 5 lpingo-o ph ectomy and pers tence of mensiru t second lap t my Krfi Bull Soc t b 1 1 de gynéc 19 4 11 69

External Genitalia

Ac e frodent ulcer of the ula HEIM 7t hr f Gbrtbu Cynack 10 4 1 210 F he id tumors f th 'ul a ith the r port I n un uule se W D IULLERTON S rg Gyn e & Olst

The de elopment of the vagina the hymen and the progenit Is sen th h man being W A Mijsh no Zt hr f Anat u Entwicklung gesch 10 4 lvn 684 Various types of vagi al malform tion G FERRY

660 The technique of oprion f agnldfin the pesenc fithe terus E Hain Zentribli Gyn k

N is cust a tree key beet lid Le d gas. Sect Ob t & Gymac a

Miscellaneous

The homo e of pestrus W BOURNE Canad n M A J 925 T 7t

وودإنا The infl ces of d ases f the heat and lung on the menstru leyel F Marsen Disse t tion kel Q 4 The menstru 1 yel in Based was d DIERES D ertati Liel 9 4

Th --

3.5

c The region to a law men with contribution the q est of th cue f can er M FRAENKEL Leip & Brch 924

Spermatog eta opoth rapy in the I male L M Piere and A Jouve Re franç de gynée t d bet 9 4 1x 633 The diag o

Ine mange of a progn sis to trivity a notion to a Minerway Am Vice 9.55 xxxx 86

St cases i stend by a ces fully tested by door in a A licker K it ky M J 1005 xx 87

Man 2 Zentraible 1 (yan k 9 4 101 3) d progn sis f trilty n both se s

Th acut abdomen SLOCKER DE LA ROSA S lo med 2024 lari 5 8

9 5 3 u nb

3.5 Ám FFe

166

The ir tment of p rpu a harmorrhagen by spi nec tom) G 1 Sutuestand and B Williamson Lane t 025 1 23

Misceliageous

19 5 ixext \$43 Abd minal operat n with blocking of th 15011 gus R ARRE S Z ntraibt f Chu 1924 h 67 tee i w I soo el ted laparotomi th spec I

> al operat no 502

G3 NECOLOG3

lite us

C nira t ns of no pregna t m lipparo s human ters M P Ricker Am J Obst 4 Gynec 9 5 t (land lar to ue in the cas ran set in ser f th ut ru. F.C. Gelles. Zischr f. Gebutish u. Gyna k. 924 ixxx 111 34

A was of u mate ut fus thumslateral bee o f ad exa LACOLTURE ad RIVIER Ball Soc d bat hecrobio is fa larg ut n e fibrom t nn ca ly Louber Man é d'Es v

time can by Lourset Man & of Benn on a Sociobal set degrade, page 300 500. The project on first time to the left of the set of the s

Indicat I emy m et my hyste e tomy de d'um and cat I rany met my hysice clossly of aunti-tive py and the restinct of the in thoronic Goi.

Lindon R frang of gynef to do by 5 x 7 3.

The sunge first and in following most of the U.

Motors Oh Steel J 5 9 x x 5;

R p ted have r bg from the creal stimp fite
s in it bysice extensy from you an executing to e
m I Router E il Soc of betted grafte of i

The tree ton nt f chro cro al m trts by F lhos an c I Vers Bull Sor d bt td graf

The al fradum ad entge adat a te im t fbe an tr hamo hag H F Busp. Am I Roentr n 1 95 x 0

1924 lva Tun I trepolyp J S H xx C d M 1s J 95 x 84

95 it for its in the red in the in tof in ma of the rest the Rad um Hom, St. Ish im S. den flassware S. & Cync. & Obt. 95 il 0. Am J. Roet tgenol 95 zi. 138 red fleet i localized inflammat by multion in the fleet i localized inflammat by multion in the control of the control th true plus po the prim ry m rial ty fell wi g Th kil y fprg ancy J N CAMPBELL N braska State M J 1925 5 R linfe t n n p egna cy G H Day kent ky

ı

The t stm t f abortion H k TUTTLE S g
Gy ec & Obst 1925 xl 87
H w tefference in l bor may be l en d bv e am na
t on during preg cy J S FARRHAREN Brit M J 92
1 205

South M &

The tre tn ent of eclamp a dipre-eclampt c town II M Run L k t ky M J to 5

The c ntrol fe lamp i contain no by intra pi ai in it of mg ms lph te B II Air na d G C Li coi. Am J Ob t & Gyner g 5 1 67

A p clmin ry po to the itr enous use of m g

Labor and Its Complications

Labor and Its Complications

J

66<u>5</u> 1

SST
The cas fmyel J1 kmm ac mplet d with preg
y treated with t real appleto \$1 stad m j
0 h war, ad J1 LCAMA. Im J Dobs & Gynec 925

"Horm hastes ip goan y H A Miller Atlante M
1 to \$2 stad m j
1 to \$4 stad m s Miller Atlante M
1 to \$4 stad m s Miller Atlante M
1 to \$4 stad m s Miller Atlante M
1 to \$4 stad m s Miller Atlante M
1 to \$4 stad m s Miller M
1 to \$4 stad m s
Reief masues d n g labor II W SCIOENECK

Pi i na trie rupte hyte eet my re n Lynt fjott Bill Soc dobst i de gynde od 11884 mand pegn y Rižar d La Cortuse bill Soc d bst i d gyéc 94 64

A case of high p be occipt | pot comlect with eclaim tim tion | 11 bor by m | s of beut e us symplays t my R Fischer Z traible f Gyn ek | 924 | 1 | 898 | 314 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 315 | 31

kec 9.4 642 Case a sect d hyst rect my f fab m prat 1 8 fb 1 c urther d R Bot sex B II Soc d b t td go 6 9.4 609 Vlrg et t m fth l ft ry g betru t t d b ry r t assar ect on a term 1,1 my y k i a B II Soc d obst et d

t my y k 1 a B II seed do but et de spice 9 4 8 The appeal bort f re mung d teru B £ dB£ ux B II see do but t d gy ee 9 4 x 6 0 Th 1 d t d m thod f I e g bortso and j m t rel bo G F turo ke t eky V I j to s

d

Hystori d t a coplasm f the rectum Bind science R B li Soc d bst et d gynéc 924 1 604

-

The treatment I pel to pp rat is R WORRALE

The ph toch mitry reaction of A timenings clogs.
The ph toch mitry reaction of A timenings clogs.
The present and T line ray Zentralliff Con. L. 1924
The property of the prop

OBSTETRICS

Fregnancy and its Complications

The life all deposes of pranancy J T sag
the converted to g d i Madmi y 4

RE 1 949

The fit much a diphy along I but of the early a sans of peg a cy if Setzitein Antite 924 1 i

A further study of the phil riding test in the early deg no for go cy L W Hay is J Medigan St te W Soc 19 5 xxt 105
The fet tion ad significate of about m is soundly in going on y and labo L Discoit Med Times

The unit tran me s n f the fetal hart sounds. L

to p i ate
p ynec 1025

ynec 1925 1 243 I Spente

i un durur ch 024 i 1

The plasm profit in normal industry consisting any 1 J Copper ind Markack Proc R y for Med Lond a S x 1 ect What R Cymar 28 I rolong dreth on the dad in his first in the Jpr gancy Put Bu B li S c d bat et d gy & 524 545

1974 OAD THE PROPERTY AND THE PROPERTY

teneral acting time to the orange of the state of of the

र " या रह स

c sy h tee them; bull bot dobst td gy c 1928 xm 677 Tub I Prepanery at the third a d f urth m the Scurice te B B Soc dobst et de gypt 1922 y 1921 Ham tocked from the unital g m 1922 supp 1 1 a

et de gomée 2022 à 56.

The perate it im it is de trautife pregnant proposation in the list of Geborish us and the second pregnant man with a mobble of Beyatter Boll for that it de

game 94 1 70

Mitempted te tr nt of hydrama s by ntra s
hypert nt majet C Managers d B nt.

R B See day te t de monte.

A site poe dobt et de grace 10 4 zu 559

A site poe dottu d'ung pregnancy i bo d'th
p roen m A G J H zu ns N d'il Tylet
Gen esk 1021 it 1004

The Wasermann et dp gnane Forere
Bru ii mtd 95 v 479

Th W serm tt IA Th detet of sephil i
ore gal lin PL Becom, lin j Ub i & Cyn c

9 5 1 03 1prgm y CM > FB 0 P g delacl Madrd 9 4 x 188 To and nee I pulm y t be cul pr 8 >

The unit nee foulty yt be cul pr 8) and the off pung C. G. Chuston M. d. J. & Ret. 19 5

94 1 5%

ĸ d H 15101

surg

I LESTEIN

GLNITO-URINARY SURGERY

Adrenal Lidney and Ureter

19_4 V 227

XXV 114 The eff t (1g tion of bra h softle renal artery A E BELT d J J JOELSON A ch Surg 1915 x 1 7 [509] Resects n of the kid ey for nephrol th as s W F Howan Hahnem Month 1925 lt 08 The resorpt n I muscle tampons in esection of the and 35 A CIMINATA Zischr f u ol Chir 1924 XVI R ght ph ct my u d r pa avertebral anæsth s.a. O S LOWSLEY S 7g Chn N Am 1925 v 277 185

Politi its recognit V BLYTTE K ticky M J 10 5 2 84 Pyelonephrit's and unemia VORON d CHA LEUK Bil Scd btetd gyne 04 x 630 Pyelon phast s tre ted with me cu och ome H C lo

Lin N Am 0 5 v 96 Imple tat n of the ret and the dresults of im

499
Deep pe cu o of the 1 mb region in r al hthis iss
JR Govern Pris mtd Prizis tri 199
Pi ph to abes as a lgclprbtem N 1
Ocker Lab J Am MA 9, 41 km 74 [569]
The dagm of re 1 lagm t W K Jaway

pi neate f th wreter into the bl dd r done in th

Bladd r Urethra and Penis

Cyst of th kd cy C B Gauser Zischr [u ol 46 Ch 9.4 se ipiert dea

MARTIN J

kd eys df HI I I LME. Med J Aut h 19 5 64 The lydag osts imig to see eith kid ey
II L kn cum n South M J of rag
Maig to ase ith kid y H L or South M 025 00 po

es I the c gnt n d tre tment of flam mat ry bladd dis ases S \ Kirkland I Med \ mat ry blodd dis axes 5 % NIRKAND J VICE 1 % GF gra 9 5 % 64 GF gra 9 5 % 64 GF gra 9
F S P rcm amd L J RREA J U 1 19 4 20 67 [509] and bl dd 1 pll ry path 1 m fah n 1 pel I SALLFRAS Sema méd 94 1 45

1 5 po ta cous ruptu ol gag u unnary bladd r F LELMSON A S g 9 5 1 km 546 S prasp be cyst tmy d icla asth sa W S Pucs I tern t J M d & Su g 915 km 48

INTERNATIONAL ABSTRACT OF SURGEPY

6 6
Cass a sect afree total loar tithe timel of of the utern R Current Leatraille i Gyn k 1924
st 11 1812

546

п

Zt

45 Q

J

g

g

f

llam r haged ase of then born L T Roy reg

late grand hunt to g f 6g

late grand hum the g of th ewborn with ca

DONICTION AND THE STATE OF THE

A st dy of p cumo is n the tillbot d born to C Jon sov ad J R Meyer Am J Obst & Gyner 1925 i 5

New born

655 P to f the pl cent emag the ntero II II Renam M d kl 94 xx 123 Bethling sear dither par R L Viceou J Lance 225 1 75 Prives ith men na whenchild it spead if receptive petat a Cross orand Mark Bull Social bit et al grat grat in 539

Miscellaneou

Puerperlum and Its Complications

The trainment of perpendiculamns a thip bears child hydrid S Singe Ct. P 3 med Par 1924 and on

Imm duate parapi gua fly gin om n Faris n ez a diakea s Bill Soc d b t t de gyné 19 4 Appe d c ts n th lyng n per od W T FECK D sertat kel 9 4

ertal Kel 9.4
Scalet fee du ng the puerpern m R Finke D
scrit ton Kel 9.4
Ge (I tub re.) and the puerpernum Farat sur re
and f utlade B ff Seed but it d gymé 9.4 mi
68:

640

t

10 4

On the tree time at I purper life and pate bottl

with D kins lith (St.f. Atagyn Seand

Such

134

S5

Eh t time t I purper al p with c I relabing 1 life

mt G H Sentello a kin Web seh 9 4

or Stods there is by doubt a go that and B is A THERMAN A A A I I'm k k t the free fall of the thirty in object J W B URL 1 and D Ga there are a State J M of ix 500

~ ~ ~

de hir 94 f oo O teop n tit after typh ilf ver JP Tourneux Md I s 195 n ext 107 An Sug 925 l xx 53 Co t eture 1 the th mbin little children n co cu n with the d ease p t f napping finge s (HALCA Wel hlu to 4 405 f w bhed fi g t l l muty a tudy f i miy D P MURPHY J Am M xs 1925 L xw 576

N Am 9 5 1 7
Sare ma of bone an 15 of fifty ca es C J Mac
Guire Ja d J E McWhorter Arch S g 1921 t

545 [514]
B tmr my ma J C Bao DGOOD Ann S g
194 | 87 [514]
H eduary a kyl | D C Farr J km M 1

951 509 Tocali fectio a darthrit NP Staueper Leyn

fect ous ar

924 L 005

35_

,

Wh h 0 4 oco Most of 1 1 rad 1 g 1 t dy T 1 No F Sug Gynec & Obst 9 4 x x 2 oco 1 1 t dy 1 t

td h 941

sole 1 1 bs LERI tres med I 924 x 11 857 bs LERI tres Spr m diet tie llis J M J Finney and W Hier so Ann Serie (1925 ltx 255

Syphis of the spine RBC IEED Rad of grips of the diagnosis futbereals spinly lists in the right to elijoscheniz med Webnicht 94 A l'alized affectin fith pie usging to toch ndris of the criterial body with the cleal a pet

The o tancy if ed ympt m the pai mit the habo arm part A Recu No the est M d 25 x 36

Fum year one of the p S Alexandra Marcu No the est M d 25 x 36

Fum year one of the p S Alexandra Marcu No the est M d 25 x 36

Fum year of the part of the fundation of the matter of the part of the p

.

t soc nated hr 94 l 5 The it ty ith cp lead thee lit ligam ts

Th _ (518)

cs th

m Beol D D H D Brit J R d I 9 5 xxx 67

20 5 45

1 Sem I ves cultis as a complication i prostation and prostationary & P. Raturia Surv. Gyre & Out. -LZE 192 21 214 20 er took 121

ctía Radum r ma l f carce m I the bistier B S Described It 1 of 5 is 1 leave by the mal blail of 1 C I coreserv Med Tir 1925 | 34 | 19 p of 4 m them to T 1 Western A other ed

Patalec tecton D L B apre U I & C to Le 195 x 1 73

Misc Hancous

--1 11 m 81 50 и €.

If it so 5 574
Obstruct no fit upper many lest \ \ \loo s
Obstruct no fit upper many lest \ \ \loo s
The sprumary obstruct nemed alsoped }
Lyten 1 Misou i State \ \ \ \ o s x : 5
U u u lum y lool & Ra ball. An Sung 192 I tra h us my tens furnir panth tr iment of

W DEN 4 Med 1 M Jerom Zeiche [u] The so-called year

Genital O dans

The profit he lib and be 1 t Brown Te as that 1 th 1025 at 437 The n globed product t H Watt 1 Web 1 G nut to 5 07

D a fith projit slithers teatment medical and until M B i assem i refused if forces K 1 09 Leu pro tate sythis I Co af teb bes ! de m 1 10 1 01 Il gm nt fthe pross t (two-1 t pen alpr ta tect my O 5 Len cer burg Cin \ 1m 035 281 188

٠ 20 75

nle lis ill ils a Neba Sist 11 0 5 44

Old path gental game of reported by ommert life C. rea North early do 925 x 6 North as defended and ready of the ready of the second of the ready of y frate nerph H Chile I quib

Conditions of the Bon . Joints Mus les Tendon Etc

H & T FATERA E Sm ffectin fth p hy Bt II 10 1 00 Tho I pas with BRAD O St 1 II] u u se site a popo a stra St t 31] 925 2 51

SURGERY OF THE BONES IOINTS MUSCLES TENDONS

It should be to das to R B Fr Rr Soc 1 d Lond ps 1 Sect O thop 4 The so-call In k by d rt N R Bu v w 1 w R Proc 32 so-call and e from the Court of the third in by start of the man of the third in by so-call and e from the Court of the third in by so-call and e from the Court of the third in by so-call and e from the Court of the Court o 281

SURGERY OF THE BLOOD AND LYMPH SYSTEMS

L 522]

Blood Vessels C gental tero en us fit la B M Bernheim

1 our case of hem riha c purpura with spl ectomy
II Z Girrin Med Cin N Am 1925 via 53
Id pathi purpu a hem rih gica vih a po t of a
c secu d bi spl ectomy M FLEXVER K tu ky M

d d B Tophylate blod transf in a a rout eness in poop prater ls GC Ward Wicon MJ 925 x 10 489
A new st peoch for dret blod to sf son V V Leostova dJ A MORAN Med J & Rec. 9 exv

Tran f on by the g metric method C L Gibson and T Fisk S rg Cl N Am 925 91
Aut geno s blood t atme t Nourvey Fo t hr d

1944 F. 43
The mbo a g t bhiteran G C Maiv U S Na al
M B II o 5 K 43
The mbo g t t obliter n C Dick o B t M [
9,51 o 4
51 o 4
51 o 4
51 o 50
51 o 4
51 o 50
51

A L S REST J Am M As 9 5 L xw 59
The trins son of a e b 2 l teibloln the e ere
int t I harm hages of typh die er C Fland wa l
A Trank Bull et mém Soc méd d hop d I ar 9
4
32 1 14
(522)

Blood Transfusion

٥

u kar

n chietr mit bolim J

Lymph 1 ssels and Glands

Milg teer cal md t smulating an u m T Lindsay Brit M J or 407

40 Th at caue felepha 1 II V STENHOUSE USN fM Bull 95 2 119

SURGICAL TECHNIQUE

Operative Surgery and Technique Postoperati e
Treatment

Th pr plyl ti dm t t f lktl bfr

Lay te with the ned ut re II Karac Z trainly fich 1941 136
Experime tai studes on the homplast ct plus to the student of the s

d W II (c x \ Surg Cync & (b) t | 9 4 1 77 | 5 4 1 77 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5 4 1 7 | 5

Antiseptic Surgery Treatment of Wounds and

Infection S

DIN

Lea e of destruct n f the o cale with deformity I A so and for abduction tra too nd s pc o the loot & L E ans Pr c Roy Soc Med Land 1025 in ture of the humerus I wile son I am M As x 11 Sect Orthop 11 107x | 120 674 and the rationed a the him rust r Surgery of the Bones Joints Muscles Tendons Ltc A ch f thent. Ł es d stor nous 1 Med 0. m 1025 ta case The treatment of trauenat affectl as I th po ats B HERITE WIN med Webnsche 1934 kriv 939 2 36 Arthroplaste VI S Henderson Mindesota Vied 1935 An w method to the impro etc at al tendon utures after cuptu of ft or and as H Russ Such I kit Herren J Am M Ass ors I en 58 [519] Chr 1924 C247 757 The operate e plinting of the spondshite of braicol mn F Lance Mu ochen med Webnicht 19 4 rt brat The patholog cal anatomy of fractaces 1 th 1 m 1 neck Sonword Mu nche med Wehn che a 4 let 1TX1 004 D monstrat on of an appar to to the redu it n no 3.0 tment of fractu es of th femur J LAVES & P sos ka 80 in ans of [520] t 100 lundeed en es f paralyti for t stab'izat o after A m thod f r the reduction of a separated i er piph I the four S T WEER and J H Nicholso the method of Hoke O L Mitten | B n & 1 at Sur 10 4 Fractures and Dislocations G The type of case th bonesetter g t F W Secure Hnt 1 1 192 1, 264 h Lhs pr £2 As we teach a frame a deal net to fractured f murs.

M. Lactor M. Sug (ye & Obl. 1931) for the fither mithing the hyportolase B. Morr J. Am. M. A. 1951 cc. 427

Do laction of the Law with rupt e f the mir. me II are Bon fractu es and pseudarthros W Zonora Med ĸ MA 1024 Kt 1104 The treatment I fra S Ax 53
The trans ets by fractured p t ll
Muen h a med hel sch o s ix 8 BALLEUIA II T NAE ELI

ı

The quest on I th most a table method I tr sime t of hab t thus tion of the hould If Fr strurg Wen med Wh sch 924 l tv 32

The mech n sm a d th treatm at of supracondyl fractures of th hum tu Luminus D at he Zisch i 80 Ch o 4 clx

57 101 fra ther and pudole ture of the same d bo egratt A book Much n md Wchnicht the grat t 1924 frx: 235

t Moos

The value of the me imal reddeng of the line for book call dows of the roung my Scriette Zertrable (Gynak 1942) 400 Society of the metric me uses Brat. Zintable f Gynak 1944 1 2400 It lile g dep thrappy X y que piment C W Muweer a d T O Meners Modern Hop 935 1 100

was a

1 RS
Th d it 1 × tg ray treatme t ic ta
ca H H Hazev a d I R W τ t π Am J
Roe tg 1 9 144

Radium

wn ;

Miscellaneous

A cont but t pl n the phys lb cs f light th rapp I Berishunt Strahl ribe pe 924 vin 2 o Act a c therapy a general pract M No p J Rad logy, 19 S 50

Rad logy 19 5 59
At oth pv 1 N Kine J Ind ana State M \
130 v 49
Two y are pract cal experience the qu t 1 ht to
hid ensite a J Zatorsky J M 1 State M

child ensite a J ZALORSKY J M 1 State M
As 19 5 W 6
As 19 5 W 6
As 19 5 W 6
As 2 J 25 J 25 J 25
Thes permitty of the ultra i let spectrum of the juntame

f 660 Dath my r cad cult rd cas Blast Mo

MISCELLANEOUS

Clinical Entiti s—Gene | Physiological

The peral it intent i on 1] II was 1 in M & S | 1 in M & S |
L n M & S | 0 s | 0 in M & Hanniza A
L n its gc | 0 in M & Hanniza A
S n o sit | 0 in m in pibliy (1 gc ii ii nil age i c M c iii nil age i d M c iii nil age i d M c iii nil age i m ii nil m nip age ii nil m nip age ii m ii nil m nip age ii m ii nil m nip age ii m ii nil m nip age ii nil m nii nil m nip age ii nil m nip age ii nil m nip age ii nil m nip ag

Legenatin stann ithem med gen bhata si wg th WiSerk Zischilk 'A

U raid 95 3 3 B W Est N 1 of M d 95 8 Th d g o 5 fca J Ewi J Am M A 95 1 1 h pe m tal path 1 g) fc F C Wo

C ne dhedts P Loerhart Munners Lanet
95 47 48 B 5 hter Arch f G, ch 94
c byg
Them tool m f a m 18 O Warden
1 N 10 chem 2 ch 94 cl

Jos Slud fth gly lyte et fr m 1 ll A VIII EE W kl Whech 94 St di po th boch m ty fe t frm t R Di et l N R VB HU B hm Zichr 94

Both meltud of camaell with the aid of of difference PLLC of the fixed school of the fixed for the f

S IO

\m 11

C (Hent 1 A C Broers Vid J & R 9 5 cox 33 Observity po the fit fan at serum pon cer if f T Luw Dry Lact 9 c i

Mit malg y \ T TYLFR J Ra! 1

3 t 5241

- 1 Fiftyl re I C Sist B i n M & S J n i exci sp P i massine i e e mi g J D Montuer Lance

> pl a tra/bl [525] 1 w th 924

Type no with a t pjott rap 1 Maket Le trailly t Chr 141 40

brud and per n nihalton n reo. (
11 per natt Real Pluthn 1994
Can lapa i my be per meed ther neyl n anne
ties C J Gut i Therap J (eq n 944 l
400 450
Luti nated toon n egl nethes (LE
L Italial S(nn k 94 xl) net

the Mid Lo I 1025 I seet I am J Local on the a Wil hills South M. & S. 191 I v 106 Loc I methe a G. P. Rich. Col rado Mid 9.5 See I act b I W. Stran V. he i ky M. I

Zi hr f Stomat) 924 579
The jesti f mand b l r n thesis F ka, n
Li chr f Stomat 1 1924 x 65

Su ghal in t uments and Appa atus

In imp d praing this girls in raising properties of use all adapted local with it to use and properties and an armone that the use of the state of t

PHYSICOCHI MICAL MI HIODS IN SURGERY

Roentgenology

R does 1 by 7 Vire Red Let 0.3 A convent to Arthritish retory sole of all the time theory sole of all the time of the Reserve Let I find the Let 0.5 A convent to the Let 0

TI so has free is 12 strat. Z table 16 1 to 4 so 1 2 little 2 table 16 1 to 4 so 2 so 2 little 2 littl

Th ung It to tof oe to raviso s C \

2

i i a E Th

wat record t b d has a trail mers R L I res Rad I m d e l Z mers Z trails i Greach ros 4 f h nt p Rubr Z nt 56 1 th a trail the ros 1 th nt p Rubr Z nt 56 1 th ros 2 trail the ros 2 trails in the ros 2 trai

ta tpoint II II ct. 7 i

ct (
rat ry

tal ry

the

Roch m Zich ua

International Abstract of Surgery

SUPPLEMENTARY CO

Surgery, Gynecology and Obstetrics

FDITORS

I RANKLIN H MARTIN M.D. Chicago
PROF PAUL LLCENE PAIS France
SIR BERKELFY MOYNIHAN K.C.M.G. C.B. Leeds England

SUMBER L LOCH MD Abstract Editor

Volume VL January to June 1925

PUBLISHED BY
THE SURCIC'S TUBLISHING COMPANY OF CHICAGO
FA FERIE STREET CHICAGO

m had f atm t fmal ant

Ductless Glands

m h h ! n I rypese ! I Parper

- {

J Osseous d el prientine docri d'sord is W I GEL I m t I Orthodo t Oral

General Bucie lai Mycotic and Protozoan

Infections
The bilgral diagnosis I tuberculos 11 Sept.

J Cir x

Surgical Fathology and Diagno!

The ut gay as e and lit the progree industration to medical L. J. Branks. Moder Lip 0.5 xxi

14
Hospitals Medical Education and History

The uniform sup v m t 1 km m t ptal by the then Colig 18 mg o A 5 mm U attent f Lebu ish u Gyn k pas have 339

Medical Jurusprudence

The obligation of the s jured and the rights f the physical with reference to operation. Multitable 18 is farrier f a cettly rightly role at a farrier than the summer of the form of the farrier than the farrier th

CONSULTING EDITORIAL STAFF

GENERAL SURGERY

AMERICA E W LEAS ANDRE DO LID C BLEFJER WILLARD BLANT-STEP FREDERICA BERLEY ARE THER DEAD FRAN JOHN F. BILLEY GROREF E BRANKE WILL AS B BET SALES DAVID CHEFTER II R CESETY ROBERT COTTEX F. GERGON (C. P. L. FREDREN), COTTO GRONEG W. CR. LE. WILLIAM R CEBERT LARGE STATES I LARGE TO LEAVE STATES I LARGE TO LEAVE STATES I LARGE TO WILLIAM FLEIR JOHN IS GRONE W. GREEN WILLIAM R A E HALSTEAD M I HARRI A PH ECA MILLIAM W. SERF THOUGAS W. HEINTLOOD JABLE N DEAD VARIN ROBERT JAKEN OF WILLIAM JUAND JOHN R. MCDILL. STATES I DAVID WILLIAM JUAND JOHN R. MCDILL. STOWER MCQUEE WILLY MICHAEL JAKEN JOHN R. REPORT TO LARGE STATES JAKE A STATES OF THE RESEARCH JOHN STATES AND JOHN TANKE GO RETELLY ALGENDA JOHN R. WATER ENDER JAKE E THOUGH JOHN JOHN R. MCDILL JAKE E JAKE E THOUGH JOHN JOHN R. TANKE GO RETELLY ALGENDA JOHN R. WATER CANADA I M. NACHIBRAL CE A MYT C. H. A SHEN W. C. S. C. PILLIAM A SHE THAN JOHN R. MCHIEF EMBER JAKE E THOUGH JOHN R. W. STATES OF THE MARKET STATES AND THE RESEARCH JOHN R. W. SATSON HANDLA SER RELEAVE JAKE END JOHN R. MCHIEF CHARLES JAKE END C. C. A MYT C. H. A BERGE J H. CARRON JASSEE HAL END. J. JAKE JUCKTION I E. ISJ STEFFER F. O. STA. FACUAND R. BERNIETH VIOLVAIRA RESIDENT PARKET STATES AND THE RESEARCH STATES AND THE RES

GYNFCOLOGY AND OBSTETRICS

AMIPAL FRANT AND & BROOM AN CILL WE SARRON JW BALD CARNING W BALE
SETT HAMNEJ BOLDT J WE LE BONEL L RON BOLN II SETT BYDROD JOING CLEAR. TROUBLE
CLULL DE P.D. JOEPH B.D. LEE RO FRIL DICKING O. W. INTRALIND DLAND F.C. DED
LEN HIGGO E NYEST OT EL SÉDER P. ERÉTDEL (F. G. GELHON) J. RIDGLE COFFE BARFON
CHRAT HOMAN DIELE I. TO INNA LE J. J. LOU. J. IL LEUS F. EA. M. LAYCH. WA TER. P.
M. T. N. F.E. MONTON HA. GEOR. C. MOSHER, HE RYP NE N. CEORDEH NO LE CHALLES E
L. X. CRALLES B. L'ENGE. R. I. EN LETT. O. JOING POLA. OR RELES B.E. ED AND RELYVOLDS.
LUIL R. JO. N. SWENN F.P. SHOPPOOR R. D. R. SUHM MILLEAU S. STONE WILLIAM E. STODDHORD
FEDE J. T. LES HO ALO C. TALLO HEL MIN VI ELEC C. W. F.B. MAK. RIED. GEO. G. G. WARD JA.
J. WHITTHER E. WILL M. CANNON W. M. CHALLEN WILLIAM GEORGE. F.M. WILLOW A.C. M.
LEVRAT B.P. WAR. A. H. W. CHALLON W. HILL M.G. BOTTE. T. H. WILLOW A.C. M.
CHOTH CHIL. THE MAS W. LO. SCOTILAND. MILLI P. FORET J. W. W. KEER. FELLAND. E.
H. T. T. TELLY W. W. STPALLA R. A. W. MALL. N. W. ZHLAND. HEN N. J. LEFT. SOUTH I. F.
RICK. H. TELE L'HELE E. L'INNA K. L. J. N. M. MALL.
N. M. ZHLAND. HEN N. J. LEFT. SOUTH I. F.
RICK. H. TELE L'HELE E. L'INNA K. L. J. J. M. T. M. D.

GENITO-URINARY SURGERY

C PER BY
THE SURGICAL PUBLISHIAN COMPANY
OF CHICAGO

5

ABSTRACT EDITORIAL STAFF

DEPARTMENT EDITORS

DEAN D LEWIS-GE ERAL NEGERY
CHARLES B REFD-CAN COLORA AND OB TETRICS
LOUIS E SCHMILDT-GEN TO-URINARY SURGERY
PHILLIP LEWIN-O THOPEDIC SURGE Y
CAPE A HEDBLOM-CHEST SURGE XY

ADDLPH HM TUNG-ROENTEE OLOGY JAMES P ITTZGERALD-SUBGERY OF THE ENE IRANK J NDVAK JR --Subgery of the Ene No f a p The ont

GENERAL SURGERY

ANTRICY CLY I ADDRESS HARRY W B CHIAN FO BY A STANDARD CONTROL RELIEVE TO THE METERS OF A STANDARD CONTROL OF

GINECOLOGI AND OBSTITRICS

WIERICA I LIDARD BITH E MED L'ORNELL R'S CRON CARLH DAVI ALFRET F DEG OAT SLATU DIP INA ABRELL DUDONA HAN WE FAR ROCKOUT JESON CE FISAE JINE HANYN B WITHES JINIA RICCI RAYMOND L WARRIS CANADA JINIR FRASER JAMES R'GOODALL II WILLITHE

GENITO URINARY SURGERY

AMERICA JU D BARNEY JONG CHEMIAN TO CODE ID DIRD IT JOSEPH'S ESENSTAEDT TOOM FFIT N. MANNA Y FORMER LEVY CROSS EDVANDE RIES C D HOLM S. HERMAN L KRET & MER METOND LE 1 AS JAMES A IT MORES JR. MAINRE MELTERS OCAR E NABEAU MILLARD TO L. LOUIS NEW IT CLARENCE R OCCUREY JORNEY D'NEW CLAUDED PREASEL HARRY W PALOC MEN R TO STEVA REI BERJ MEN FROITER HE REVEL STORD CHE HAIT THOMAS

CONSULTING EDITORIAL STAFF-CONTINUED

ORTHOPEDIC SURGERY

AUFRICA F GERUKED VAROUT NA A THE ALLIS V W S BARE ALS RI H FREIRE VI ""
GINNEN JOEL F GORDHAMAT II WI "" WITT ORE GEO OF B PACARED W W PLUMINE JOE L PO IT
JOHN RIBLON ED I W RILESON DIVENSIANTE COVUND A VALCEE ET FORES HERST FP HI
CALIONAY CLARE CEL STARE ENGLIND \$ ROREST JOYES RO ET OLLEREN HAW HARRY PLAIT
H TURBUS

ROENTGENOLOGY

AMERICA RE ELLO CAMA J MEST CA E L CREGO COLE PRES NM HICKEY HEMEN GROREC C J T N SIN RY LANGE C ORDEF P NRLER HOLLT P POTTE CANADA SARGE CLW & 8 ALEND REER IP ILE

SURGERY OF THE EYE

AMERICA F \ L Br wa H D Breas \ to H Het Edward Jack on Frence L & William C Po by B waybers John J Werks Casses D We c ft W lee hit W H W ider Cassey A Wood Hiram Wood ENGLIND Joa B L wrord W T Holwes Sp ex SCOTI I VD Str Ce c & Breny \ Matiland Rampy

SURGERY OF THE EAR

MERICA FANG W DAY MAY A COLD TRIV J F WCKE NOW NO MALH FLERGE S MACCTEN SUITH CANADA II S BIRKETT FNGLAND NERHU H C EATH SCOTLAND A LO AN TREMER REFLIXIO S. RO SER IN MOOD

SURGERY OF THE NOSE THROAT AND MOUTH

AMERICA JOS PH C BECK T MELL E HINDE THOM S J. HAR IS CREVALIR JACES W. JOHN E. AUSTRALIA A DR W. J. BR. Y.

INDEX TO SUBJECT MATTER

A aphylarus A aphylactic hepatic te n i sec etion in \ n k

Ann S b tit ti n of permeal a d vaginal extirpat n for Kraske and combi ed operatio s with perman t c of an

cto Alk to T im tofp prinfet follwag 50 Appendectomy Intestinal obstruct on f llowing 1 3 ---

Abec s I trath e gra t ti 10 extra asation of

lytic strept coccus s pt mm 532 it mycoss I m 79 t im nt of 413 pelic

y pealgitings hesinia phylins

ing the Moln im gn mslphtessbit Aqu s fl id O tst ding beam of 473 Arm Long-co tinued pa iys of foll w g plevus angs

thesi of uppe 525 Physiol gy I pen rienal n nes 14 r I ton of of human e much to et ology and p thogenes a of gast ulce 372

h thatis Tre tm t fg rhoeal by intra rt cular in ject of antig ococc s accim to surgery in suberculo s to ero n of a toular c rulage f m pr

BACK Indust 1 lam 68 l w str of w thrfr en t und tri l'accid nt 15 5 / Sp Back che Ch c n gynec logy 384 Basedo d seas Se Go ter

2 0

¥1t

1

ABSTRACT EDITORIAL STAFF-CONTINUED

ORTHOPEDIC SURGERY

AMERICA CAREA J BLALIES R. FRA CES W. CARRETMERS. FRENOVY A C. ANDERE WILLIAG A CLARE
DENAI W. CRIDE. ROBERTA FRANCES. CIESTRE C GOV. DATABLE LANGUAGE. PRINT JESUS. R. C.
LANG CAM, DOI MITCHELL. BEAVERD E H. MOORE FRANCE MERTY. RODGE NS. RAICH. TONSTE.
RESTER C. SCINYDDER. HEBBA. C. SARCHAN. S. C. WOLDENS MO. CANADA. D. GORDO. E. 183

PHYSICOCHEMICAL METHODS IN SURGERY

AMERICA WILLIAM L. He and Administration of the constraint of the section R . Level $L_{\rm EN}$

SURGERY OF THE FAL

AMERICA T: USD ALEN LAWNAC PS ALESTE B DARK GROUPE R MCAUTER L L MCCOV AUBREVII PLUF IS NELVE SHEETER STEPPE A SCRIPTER ARE ARE LIBERTET C CO T L T

SURCLPY OF THE LAR

AMERICA GLYL BOLD JURE C BRANDER LDF THORMS C GALLO HEN YM GODDYRAN FRYNKIN I 18 MAE I 18 NOLLEWER (LORGE R MCALLER T TOMAS F OC N & OTTOM KOTT FR. K. LL. P SCHESTER STYPE A SCHETER WHILLIAM STAN J B ST. E. & M. 7 80 R M LT. C1/104 M. 11 Juni 50

SURGERY OF THE NOSE THROAT AND MOUTH

AMERICA GEV L. BOVDE JAN S.C. BRA VILL J. MATRINA N. FEDERSPIEL CR. REE. W. FREEM N. TIOMAS C. GALLONAY. FRENCH K. MA. SEL. A. R. HONLE DE. CO. OF R. M. CA. LIPE THOSE S. P. O. C. O. O. O. TO M. ROTY. FR. AL. N.P. S.C. LYI. R. STIFFIE. A. S. HISTER. W. MILLIN B. S. R. J. B. ST. T. V. M. Y. R. WALLIN. R. WALLIN B. S. R. J. B. ST. T. V. M. Y. R. WALLIN. R. WALLIN B. S. R. J. B. ST. T. V. M. Y. R. WALLIN. R. WALLIN. R. WALLING. R. WALLIN

Cells Q at t e f ctors n s scept blity flag to Cyanosis P raiste tlarge thymus scau fin ne born ıfat o e trn l gents 58 Cystit D secting gang o Cerel llum Ab ess of 285 Cystosc py Pr mpti on f nal c lculus r led Crt Se Uterus by 52 Chest Gr state abs es in 19 ca buncul r ml tion of will of following rib re ct on under loc la asthe Cyst stomy S prap big 1 fre tment finjures I pine Y -** Cy is Pathology dagnos and ire im nt i rein pen t cal 30 S also nam s of orga DACRYOCYSTITIS [10ff mmat y swell as imulat thl gist my 2 o s I to T atment of p erperal fe er ni sept Ch legistect my \m t of blood l t duri g c mmon on rati 16 close of abd m alca to by tur abo to n w th so6 fill ng to2 Chilecytts De I m nt f 34 d gnoss f bl ty De fne s Rat n I therapy np g es Def ento-u th stomy 4 4
D formity R I tion of pl c ntal infar t t etiology [46 Deft d Functio al re ult f ribrod Ch 1 3 toduode 1 my 16 Di betes S mc I treatm 1 f gall bladder d s Ch legston troatomy 36 128 ng ry 1 164
Ch legy t stomy I d es its 1 g ll t cas teated D th my in tube cul us les a s of bi dder p rs 1 ng by 35 fter neph ect my 7 in treatm 1 f ph vn ca cer 16.1 D odenum Surgelt tm nt i pe i tng l of

g uud ricults ad di ricli 370

Cont ture Use f ---

t tructure and phys logy f m pg d Piles

EAR lampo to of city different led mose f tra
of temple cat n i fill must of modeler
and graphy filters loom of the
add graphy filters loom of the
it g lad think graph loom to scale if if
dimension any n matter to tol chroc
spourat 363 S I Dafes II ng
de see f ar
Eclampsa Oc e f and toff tone free

Eclampsia Oc e f a d j tili ton fr ct e
tt im i 47 th is gle death att b table to
e d
t

Bil a

and ope atto s

Brackast pie us he raigns of de to hypertr ply of
s entine; it a se se proce scured by antil ette
tre timen; is

biaud inte u ci Birth traumata and mo tal ty of newborn n first d ys f life xor

1

Beast Routy n te im t of c teinema 1 16 114

CREAREN section Status of 40 tran bento)
neclampus 315 temporary ex monation of ut ru
after and its eplacement in abdom a fire (rty
five d ys 303
C teaneum to ortho 1 percetoss of a meent

batter in in progress 5 septe in e tiles 245 m books 3

had their ripe to the focal action a compact of 1 X v

ai extr t n of 197 mod m operato s t 72 c c pr nt 473

```
3 4 ntrad ral næsth in rg ry of 326 m
urolog c l perat s perf rmed unde reg al
 esthe 36 ch of anæsth tic proc d e in
```

ppl ed

logic I nd t ons na) ngy 5 5 5 1 mes forg

5 5

H d C ns q ences f mo iding f tal 507

ne 6 rel t £ t chidb th 39 t f p rpenum a taft r 305 (r es l

with In phy t dg st 1 1 mil 1 be Cyn 1g 11 Rdmi mign 1 44 t i t ad m d eases I female p 1 Gy ee 1 gy Appl

Applit frat f dmitt fryth 35 h f artht procedures hypothet htruit mi 387 p. g nc)t 195 It t nty pro 45 d peff ct of H LUATINISIS Dest

for [hgu t lmle 47 bilt lh m ph I m th periode so p ilpen plant the ft mite ggestigre l l l 4 esse til 50% Haemoel tie t t C mparat t d t dy f ph n ft tra h hg test f by 1 tra

mpl dum tt 48 potpert tos f bd m l pe t to) al Hæm rrh d Tre tm t i b ject m ject 99 If liu igu C teopl t d rthropi tes c mb ed

H mia Ope atto frangum l duri g ch ldhood 118 Hern ot my 1m at of blood I st during mmon opera

livd mns 316 Hydronenhra Infects a of perm t 42 l

fe tu es nd d g f 3

Hypophys s Physol g l h m c l and cli tcal studes
on pt i y pri ples 2 radiation of 13 path l gy 1 48 Hy te ectomy R m t it I f nd 1 4 tnd c ttons r etype (puerper lt fect 50 am u t f blood lo t d g omm p t 16 re te g ifit i ill wng 384 e ly postope ti

b tructe n in gyn c logy 387

t matl 498

th t dn tra pl t t t tment f 54 н

11 14

7

m il c artery tre ted by perat 243 bon marrow flngs i rabb t 43 post perati e p l mon ry 332 a rtic fmitral origin tr ted by p r 1 44

> Fibro t e Tran pla tat of a pa f at mil delects 60 Fluida Non-operati t tm t f b malleola a d
> D p ytre fract re 40
> I gers Us f el p ng soft pari ff t -ob tru t
> g f m ltancous m lof dj ntm t rp l

306 Introcline D gnos f cut belin al ilin in children 2 3

> Ppyt 4 edut nad trl 1 m ble by mtlpryf 33t prim ry t in fet mit 42 S 1 nam 1 bo in pen

h --

init n 47

is hit na 7.

Ith onla exth is Miged yn ri m fm gn um GALI bidl 9 new m thod (si ting 33 appl to f 1 ray 5 d gmos f diese 6 f 34 g lift cand or 1 ray 5 d gmos f diese 6 f 34 g lift cand or 1 ray 5 d gmos f diese 6 f 34 n

ուկ __

.

FACE S fac rad um ther py the se f m ulded

c

cl ifi ati ti μ

ĸ

I to phenolitetrachi rphthal in in e rly obstructive. Men sthag a Treatment I fibromy mata of 1 rus and ther causes of by tensi e r entgen r y ther py with ef r nee t pos ble complication of malignant

i put at es in tele 1 e to

emeture 3 1 ord Active brace for lumbar 69 L gs Pre e t status of the acoplast c perat un I t ral tubere lo of 8 c mpl cations in in

220

hos d p imonary embol m 242 bone m frow -

Mit rrhagia Aft mn pause ca d by t mrs a d

435 end esult of treatm nt of tuberculosis of by 435 end esult of treatm in or two-reculosis of by artif ial pine in thorax 486 c t ry pine mectorny fo chro s ppu t n of 487 inde t s f thr a coplasty in tuberculosis of 487 primary tumors of 485 p or c p t c mpl t ns f bd min l pera ti 5 S e alt Bronchi Che t and l g d ease and p ratio

Lps Sgclaspects of 528 Lymphomata R tg dight treatm nt f i bere

Lymph rooms Physocytos s fructear material (chrometri) by t lo endoth l j t m fier 1 iens e tge irrad at ni e se i primary bdomin 1 74

cept n of som to nd ymp th to nnervation f v luntary 48 Myosius I fectiosa 23 cli cal a d rai lg l st dy f f s 5 5 un 1 se of ossifican 515

Myxoma s 4 NASOPHARYNA T tm t of malignant t m rs of 14 5

ia abiti tt f

lelpetndpthlppof 98 Meist Difog bod næsephgu 17 p thw v f of Medical school D't ti f t ns fu dergradu te dg d t 8 บไ≉่_ี่บูฬ ูโป d neo 1 rum 4 a ute

> t 54. Bra hial pl det hypertrophy i se enth rvic lt s erse proc cured by ant l tic t eat me t 12 ha top th l gy f gassen ganglon s tng mmal N . 16

Wangs m ta Roe tg logs la pects of 480 Wa gits Sig lit im t i 97 tre tm t i i phyloroc a d treptococcu by c i

of to8

of study i bood chem stry in cute abd men 2 4 cl cl vers s experiment I a t mosts i h llow

n phortic absce 3 4 ac t abd m 378 uret ral trick are in ob tetrics with refere c 1 multipl

La is with 1/4.2
I meat in Results I is c. 1. In no otoerhera 474.
I meat in Results I is c. 2. In no otoerhera 474.
I no a time to Comparison bet een been h and
Cerman eryth mad six aam 3 red o Solom
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/0.
13/

l se nd perat n

KFRATITIS Te tim t I parenchymnio 16 to treatment f f ll 12 grad od mi tus 56 to treatment f f ll 12 grad od mi tus 56 to 12 P mpt gas of al ulu of re fall d by y t cope e ami tu 5 b later f ectop 52 eces ity f close co-ope 1 n betw n roemte ologic t

tt chiequi es 5.7 Labyrunth Labyruthin cimpe i ryesepi ti s 193

perat 5 150
Laparotomy I d to a d c ntra d at ons f r
plerat ry 4

leg Bacten I dra 1 nove le ra 17

See Iso

s ons of 336

Pleura Intrath acic les a f llowing X ray treatment try indistibilities of 400 gr thways of 200 grows po tono for tetroid g 1 di gno as of mail effa po tono for tetroid g 1 di gno as of mail effa with f ence to multiple about ns (rc al) and of symptomic yet intonic at phylococcus if a see

ſ 1 ponta eo

4.4

St mack

1

220 plasm protein ariations in normal and to merc tre tm t fc rof t rune ryicd rung d partuit n with adum and surgery are effect if filmed t m rs 3 7 diag s of by biological n ma f cervi t 36 ut rine fibro ds treated with 36 mod m methods and results of treating mal gna cy of bi dder 146 effect of radio-active for n blood ess is 58 t eatment of fib omata of nasopharynx 63 ope at rrad t n n c uterine ibromat 2 6 massi d e t im nt in re m of ut ru 217 new technique of curie

ī

g etal agg ut bet --

g Bad 314 Ut 100 h

PM ETS d sease of napple 114

OBSTITRICS Mik injecti na in 310 anni 1

Œs Œs

Pranephrit 10de ab nele of kdney sy Prapign Dyn ia die atm ntid tomps 1 366 Prathvorifect mv Cboges in kleial grothidag I fill wing 3t

() I tometry System cle set 4 6 m ope y 204 () m nt m tih f ung ing recurrent e sta

ners a down. The time tofish nking add no of hy caurpat n 1 2 f.
Ferin photiss Pa (1 harmat no th harmat n of thanmat or no thanmat or no than and or no than a finance m D fl rental diag ou offer.

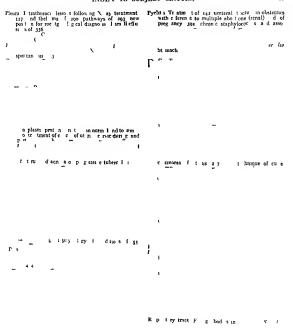
I F

O hth lm 1 - 1 0 4/5

() toch ndrit d evan Prol) m f 15 C te myel is Acut 48 5 is n fars of bones O too yith se Lod res lis f f closed hur eral fric tu 8 05 (Uits m)] m far

Ü

3



physem i llowing fr cture of

XV1

Rin Ri a

Roeign ray diagno is ormal dn h -

t banc foll g d ep 5 7 r late e at s f

Rocasgen 1 g v d c made d mng last tw uty

3 c rs 400

9 -

st m ch a d n posten r salt 403 fmyos tis os fi c s 515 Roe ig ray tr time t Furth repen ce sth radia

to 44 experim tal tud o i that dise of for hum a d the tum rs 73 of gamt-cell

Specifical describes once

Spinal to di Roe ig nol pical e id nice of t mines of 13

303 f n thymogld frablit

a gry [3 2 4 in gi ntion fam ll testine f ll ing 1 ri gastro-ent restory 25 96 ile ad t i ag tio [1] n m t 6 ndi t and nt nd it fo explirately 1] t

ı

١

ſ

Strsq t q

fm ral rtry aft perint m bif big p t 3 1 45 TV C 1 1 _33

perati e nd 524 Syphilom And uph litter docycl i s 277

TALITES N p at e methods TAILIED ST SUBCULAN ST BOOK MY I the tend not hills 155
Talpes valgus New prite method 1 th pedie surg ry 3

Ticles Opeatie trim t d de lis of un

1et

tube ul The S Che t

Thy

Thyrogi lt t to is d fit læ of 475 embryo-lgclc dion of 475

```
Thyrod ctomy Am upt of blood 1 t dur g tommon sort at a 160 influence of a thingur all al f
    tablits 202 sophthalm gotter treated by pa t at
                                           1 19
                                                   £ 8
                                                   164
                                                              •
                                                 1110
                                                          Urol gy Gfa at t hat iwenty 3 75 457 f hetamethylenet t
                                                               f 1 sea s 4 merological disc ses 44 treatment of
                                                      i
                                                  n1 d
                                                   350
                                                 n p
                                                 ore.
                                                 hum
                                                              type of rills a stud
                                                 nt-cell
                                                 Land
                                                  a be
                                                d el
                                                Se i
                                                lood in
                                                              t
```

١

Vix 53 U ea Tre time toldes 1 277

VAGINA R lts of treatme t of genit 1 c ca om ta
44 ut ovagnal t mpo ad 22 op t tre tm ut
f displac m nt f 305 cq i d atr 5 x f 4 9

ment it be the property of the three P inful piphy sit is f fadolesc is 62 numer is all edition and high of cervel is Self as k Spin and high of cervel is Self as k Spin and high of the property of the prop

tum rs Vest h | Experient 1 b s f the ris n tlut r function 19

WKY neck S T rt 11



INDEX TO BIBLIOGRAPHY

SURGERY OF THE HEAD NO NECK

H d 8 66 254 34 424 533 Fy 8a 66 54 34 424 533 F 83 67 255 34 425 534 No ad Sn es 83 67 255 341 4 534 M th 84 67 255 342 426 534 Ph yn 84 107 256 34 4 6 534 N K 81 168 256 142 4 6 535

SIL GERY OF THE N RV US S STEM

B adlt C ng Cra 1\ nes 85 69 257 343 447 536 5pin 1 C d d It C e n 85 60 57 343 4 7 Priph 1N 85 69 457 343 4 7 536 Symp th to Ne es 86 7 57 343 4 7 536 V ell 70 88 344 4 8 536

SUR R (F TRF CH ST

Ch t W 11 a d B t 86 7 2 8 344 4 8 537 Fachea Lung nd Pleu a 86 7 58 344 4 8 357 Heat d P ri d m 87 7 2 8 345 538 Casphagus d Med settnum 81 9 58 345 4 9 538 Mcl 87 7 59 345 4 9 538

SLEGIBY P THE A DOMEN

Abim 1 W lla i P t m 87 7 250 345 4 0 538 tro-Int t 1T t 87 7 9 346 439 539 nd spl n 80 73 26 348 431 54 M cell en oo 74 6 349 43 54

GYNFOOL Y

Uteru 9 75 63 349 43 542 Adn land P t C d t 0 75 (1 340 413 543 F t mal G t l q 76 64 35 433 543 M sc ll neo q 76 64 350 434 543

O STETRICS

P gn v dit Cmpl t so 77 64 3 434 544 Labor d Its C mol t 93 79 6 35 436 545

Puerper m and Its Complicat ns 94 179 266 352 436 546 Newborn 94 179 266 35 436 546 M llaneo qs 70 266 352 437 546

GENTO-URINARY SURGERY Ad nal k d y nd Uret 95 79 266 353 437 547 Bl dder Urethra and P 96 80 267 354 438 547 (n tal O g us 96 18 68 354 438 548 Mt II crus of 8 268 354 438 548

SURGERY OF THE BONES JOINTS MUSCLES TENDEN C dtin fth B s foints Muscles Teni s Ite 97 18 69 355 430 548 Surg y f th B nes Joints VI scl T 1 83 270 356 44 55 Fractures d D loc t s o8 84 70 356 44 550

SURGERY OF THE BLOOD AND LYMPH SYSTEM Blood Ves el 99 84 272 357 44 55 Blood T a f 1 99 85 7 357 44 55 Lymph Ve Is and Gland 99 185 7 357 442 55

Orth p d s n Ce al o8 84 357 44

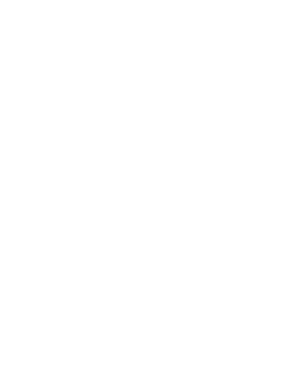
SURGICAL T C NTOLE

Op rate S gery d T chniqu I tp t e Tr at m nat oo 86 72 358 44 55 t t septe S ng ry Tr iment I W u d 1 Infect oo 86 77 358 443 551 Azsth oo 186 77 358 443 552

PH SICOCH MICAL MET: 5 IN SURCERY Roe tg 1 gy 00 187 273 350 444 552 Rdem 87 473 3 9 444 553 M scell e u o 87 273 359 444 553

MISCELLANEO S

II ptal Medic lEd at n dHst y oz 360 554 Med cal J risprul ce 554



INDEX TO AUTHORS

Abbott L C 66
Abel J J 11
Bes en I L 400
Abel J J 12
Bes a con F 200
Bes en I L 400
Bes en I L 4

INTERNATIONAL ABSTRACT OF SURGERS			
El berg C A 472	Chron V 2 3 Chiba D II 228 Groon TE 144 Gfo J S R Gll V B 519 Gliba D V 40 Gliba T L 2 Gatte B J C 8 Chapel C J 350 Gle F 25 Lockerman V II 24 Go pel R 16	H llstroem J 398 Helwg C A 365 H lmh lz H F 32	J di E S 7 373 500 537 } ra V 4 Ju t E 40
Else J 1 3'4 Enfi ld C D 4 9 Engm n M F 529 Enright J R 208	Ghun TE 144	H lmh lz H 3 32	
Engm n M F 529	G ffo J S R	He d roop M S 60 378	Kaf Hr Kab A 4
Enright J R 208	Gileso W 49	Hephurn VI C 2	Kan \ 308
Escrie V 515 Evan E T 2 1	Gilme T L 2	H bert H 3	Kar J H .
Eschie \ 515 Evan L T 2 1 Li n J \ 192 Evan J 529	Gntsch H 1 Z 397	H bert H 2 H e deen R F 75 H ra m a J h so F 74 H raman C S 97	KaalAB4 Katrill of
Ewin J 529	Claspel C J 520	H reman C > 97	
F gart 48	G) ck F 22	Hes L J ² Hese E 301	k plan 1 1 330 k pp 8 M 379 k Tp D 83 k W G 3 508 keen F E 44
Fills G 245	Go pel R 16	H see betg r E 318	K W G 3 508
Fa ta B 318	Glek I 221 toockerman W H 24 Go pel R 16 Go ri P 60 Gold L 9 Gold L 9 Go zaicz 1 32	H see berg r E 318 Heyd C G 1 4 3 5 Heyman J 35 5 3	Keen F E 44
Falt n R 238	Gold ten LE 226	Hern 1 40	K dy R L J 24
Fau e I L 50	Go zalez 1 32	H W 293	k ir J R 400
Feather t ne II 5 4	Gould L 376	Haman F 144	Khoér D 413
1 4 2 1 366	Gould CB 89	Heschberg H 21	k ger W H 7
l llet b. 10	(K) te F W 195	H rschm L J 200	k /k T 237
Terreta G 68	G de H S 278	Il hi cg li i o	Kinn A 33
I (1) (40	Crah m I 1 437	II Ibrook F R 2	happ \ o3
Tull de l' 395	fratl G 1 2	11 Im G 23	knau II 4 8
1 d y L 230	Cray C \ 174	11 lm G W 16	k pp ng H W 333
Fine 1 MT 457	freen J Jr 362	Holemann VI 4	K 13 (0 3
11 ste 11 497	Com rod II 0 or	11 dr 5 T 31	Koert II
T h + 1) 4 3	Crégore 17	H w rth W 479	1 F 10 1 231
F 107 F 320	Crossm II 4	Heyntsch L T 53	Kuhn R 300
Fland n C 5	G dt. [1 24] God 1 29 G of 1 1 6 G of 1 1 6 G of 1 1 7 G of 1 1 6 G of 1 1 7 G of 1 7 G of 1 1	H dly G P B 35	k mpil ff C 37
I het 1 32	(to feet K 414	Hueck I 19	Kutzmann 5 A 144
Frich e Rock et 50	Guill mi (1 350	II ch mann 1 /-	Townsell I f
FWI FI 3	Gundermann II 30	H rn G 1 395	Lag B 7
Fra each 513	0470	Hunt \ C J24	La X 9 83
Franken S 11 1 280	if den if C 473	Hunte J 1 481	Lang G 3
Franz J 105	H grand II D 13	ii tch o R 9	Lapo te 37
Frase] 19 145	17 1 M D 4		La FT 47
1 aser) 1 452	liaipe t B 33	In 4 C 102	La e A A Zo
Fra cr J 5 475	Hal ted T H 3	J keo 1 S 478	Lard P.S.
Frazi e C II 197	Hammo d 1 L 5	Jackson E 10f	L ke C D 4 5
Freedand 11 /35	Hs dield I me K W	Jacqu I 4 200	Leddy E T 420
In d n ald 11 473	Handley W S 491 5	8 128 H L 1977	Lee B J 7 99 259
Frida and Jo 4/3	Hardini, 1 3 9	sen 11 5 8	Lehma W 246
Ir n tein R 400	Han DJ 23	Jansse 1 500	Lebo R tot
Frosch L 335	114 tley 1 333	3 1 6 47	Le ich A 35
If n tein R 400 Frosch L 239 Fuh h ls 4 395 Fu rst W 47 3 5 Fu mor S 5	Ha tma n H 2 h	Jell 1900 G	Leland to 1. JF 60
Fu) mor S s	Hartung A 466	Jez iski S 491	Lem W S 386
(lm P 19	lias I 1	Tohansson S	Le orm 1 C 304
(list of h , t >	Hayd n L P 23	lones D F 3 t 4	Lin A 5 6
C t 5 G 3	He ly W 1 36	ne S G 406	LE pera ES 26
C rd r W D 160	Hear y 4 8	dall E 33	Le k D 48
Guan NI 27	H d re h 1 336	5 ph 11 19	Lev 1 427
Cellh m (30	He duch L 53	see 1 mos 1 mos	La f S J S S S S S S S S S S S S S S S S S
Gerstenberg H 3	Hatting A 4600 Hatting N H 303 Hat J 1824 In E P 23 Hayd In E P 23 Hayd In E P 23 Hayd In E P 24 Hatting In E P 25		

Schn dt 1 E 457 Sorrel E 62 Sosman VI L 480 Schmid n V o Specht O 2 Schoe h 1 1 12 Scholl 1 1 245 247 Schoo mak 1 1 2 9 Sch eiber 11 39 Special Specia Scheiber II 39
Schrei er B F 18
Schulle M F 6
Schulle J 44
Schultz I I 03
Schultz I I 18 Stary P to St cem no H 44 Star II 5 1 Struba dt B 308 Schwoer r Br r X 11 S 04 0 Scott W J M 494 Scott V 1 147 Stete L 1 44 St tre D 142 Stet W F 2 6 261 b C H 3 8 261 b C H 3 8 261 b C H 3 8 261 b C H 2 101 261 b C H 2 101 261 b C H 2 101 Stenart M J trb Menart 1 118
Stiglbur R 317
Stock I W 305
Story I rd J S B 414
Stock I W 305
Story I rd J S B 414
Strau I 136 Sherr n J 40 Smn 11 1 12 07 Strogan II 42 Strogan II 42 Swett I P 5 Syme II 5 Syms I 7 Stematoc (08 5 g 1] 4% Suco 1) 1 12S SkiR ta Tak 64 Small blow Smith L 330 mith L 330 mith L 33 mith H 47 mith S 43 muth S 1 330 Tallet J 1 4' Tallet an A H 4 1 Tage bam \ F cell 1 3 330 cell 1 3 5 cell 1 3 Se what of

Th reton E O 200 T tat \ 25 T'lley H 104 Take M B 282 W th 2 JL 420 Webe F I 322 5; W l h J S 331 W l h P B 375 W l h A G I 4 Tahaa L 44 Tone 1 450 Tone 1 450 Townsend R 5 3 1 Townsend W W 42 or O grantl W Werth mer I 143 West rhorn 1 198 Witt rdal 1 353 Weyman Wil 196 1.7 Frill t I 4 Fruesdale I I ro Nevmuller (A 229 Tru to 11 50 Wht F W 408 The HIN 33 3 2 Tu ke C 30 Tu rett 1 G 414 Tuttl II 1 50 White L F 473 Whitman 1 31 Whitm 4 19 T24 ck 4 522 N le sky 4 O 379 N Le D P D 1 9 N U 1 5 N 32 N bop L B 81 LHms n H J 253 te J 112 Ventock ta l 15 W bon I D 24 landen bergh II 31 lnder H e L 243 lnder H B 283 1 111 4 0 Wikle & 3 Wintz II 6 Holf S & 317 II liff F 181 II I W 408 1 ughan K T 203 1 hoeff f H 47 Versteegh C 193 terspergo C 193
lockler F 403
lockler F 403
lockler F 38
l gt I 41 v1 1 387
l n B t cts C 252
l n Brunn M 90
l n Wolf k 25 Wood F C 336 5 8 Wood F C 336 5 8 n bt H P I bm I T to | Line | Young 14 Yang L B 6 Yudkin 4 VI 06 ZUr H 364 2010 1 1 61 200m rm n 1 L 277 Z d k B 38



WE HAD YOUR EMERGENCY BAG IN MIND WHEN WE INTRODUCED HANDY FOLD GAUZE TO YOU

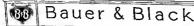
It is ready for immediate use There is no need to handle it It does not need to be cut or folded That is why we call it an emer gency dressing

A machine cuts and folds it All rough edges are turned in The same machine tucks it in a parch

mine germ proof envelope. Then it is sterilized It comes to you sterile

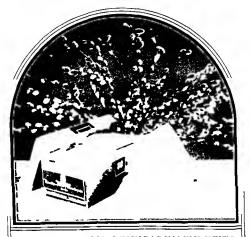
Bauer & Black Handy Fold Plain Gauze is the ideal dressing for emergencies as well as for ordinary uses It is not bulky therefore many envelopes can be carried in an emergency bag

A membe feh pr f on wh duthth nue fBa er & Black broducts is









WE HAD YOUR EMERGENCY BAG IN MIND WHEN WE INTRODUCED HANDY FOLD GAUZE TO YOU

It is ready for immediate use There is no need to handle it It does not need to be cut or folded That is why we call it an emer gency dressing

A machine cuts and folds it All rough edges are turned in The same machine tucks it in a parch

mine germ proof envelope. Then it is sterilized. It comes to you sterile

Bauer & Black Handy Fold Plain Gauze is the ideal dressing for emergencies as well as for ordinary uses It is not bulky therefore many envelopes can be carried in an emergency bag

A ymembe fthe prof on who i quas ted a thehe reues f Ba er & Black products is u I ome to t st pecimens u thout ho z Mer ly deatethed enon which you ter stl s.



Bauer & Black





Simplifying the Removal of Small Foreign Bodies





TNSTEAD of working under a large stand 1 ard fluoroscopic screen the surgeon con centrates his attention upon a small Patter son fluoroscopic screen only 31/2 inches in diameter Hence instruments can be used with the utmost case to remove needle points metal fragments and small foreign hodies

The whole instrument can be taken apart and sterilized

The Patterson Foreign Body Fluoroscope was designed in accordance with recom mendations made by Dr Robert A Arens radiographer of the Michael Reese Hospital Chicago III

Price complete with carrying case \$40

Patterson

The Patterson Screen Company

Dept SGO Towanda Pa

Eastman Dupli-Tized X-Ray Films

Super-Speed

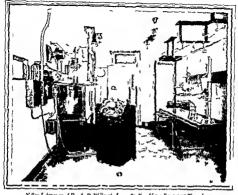
Fast, contrasty and clean-working But above all—

They re dependably uniform

Eastman Kodak Company

Medical Division

Rochester V Y



He K V ctor Equ pment Th gh : KRay L borat ry fD A D Wilmoch L

Time and Use Reveal Victor Quality

As months and years pass the Victor A Ray machine installed in the physician's office or in the specialized rooms enological laboratory un failingly responds to the demands made upon it Day after day the same trustworthiness in operation the same certain results as in the b-ginning

Thus time and use reveal the quality pains takingly built into every Victor & Ray machine

mpl V etc X Ray mahn whihm the d mad fe mirate We hall beldt gg tibe typ fV t mill n bet foul dt m t dt m tth q peat the public peral sedibitty.

VICTOR X RAY CORPORATION 236 South Robey St., Chicago Illinois S les Offi a d Ser St t s All Pr





| I m behavered t \ \text{ or App = } f \ \ \text{OM in I Deskere O' Phanter p; Nam } \ \text{OS is a Uniform Offic Med as St t} \ \ \text{IS is will Threepy } \ \text{Two.} \ \ \text{S} \\



"Ray L boratory J D A D Willim h Lo | 1 Ay V cro Eq pment Through ;

Time and Use Reveal Victor Quality

As months and years pa s the Victor X Ray machine installed in the physician's office or in

operation the same certain results as in the becoming

Thus time and use reveal the quality pains takingly built into every Victor & Ray machine

The are only Vacor VRey making with him to the distribution of the distribution of the distribution of the control of the cont

Whilb gidto ageth type of V ratall the tall the

VICTOR X RAY CORPORATION 236 South Robey St Chicago Illinois S in Offic; d Sery Station dill Pr p 1C

มีที่ เห็นโดเก็บ เทราที่ผนกระยะเรื่อง



DESCRIPTION OF THE PROPERTY OF THE PROPERTY OF THE



The New Power-Plus Generator

ANOTHER far reaching Keleket de velopment Provides ex cess reserve energy for all ultrafast techniques in Radio_praphy Recent ilemonstrative test operating seven universal tubes connected in parallel at

120 000 volts

with 75 milliamperes passing through each tube a consincing total of

525 milliampere

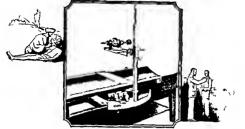
This indicates the exceptionally high efficiency of this new Kel cket apparatus. Voltage and current controls also permit use of any spark gap from 2 to 12 niches—equivalent to universal application.

Superb construction Auto Trunsformer Voltage Regulation with Keleket Full and Limited Capacity Control Safety Over load Relay Oil Immersed Remote Control Magnetic Switch Pre reading Kilovolt Veter Ground Circuit Master Milliam meter Polvirty Indicator Primary Coolidge Meter Built in Coolidge Regulator Unit Type Rectification Oil Immersed Transformer and Separate Control Unit

Get in touch with your keleket distributor or write us today

THE KELLEY KOETT MANUI ACTURING CO Inc





The Engeln Bucky Table Comb nation

Helping You To Help Others

LIKE the good Samaritan on the road to Jericho, the Physician of today reaches out helping hands to the suffer ing—lifting them bick to the paths of comfort and health. Trained minds and willing hands have designed and built dependable equipment to assist him in his diagnosis and treatment. And today every Doctor owes to him self and to his patients the advantages which modern X Ray and Physiothe rapy Equipment offers. Let us help you to help others by explaining the application of this specialized equipment to your practice.

The Engeln Electric Company X-Ray and Physiotherapy Equipment

Cleveland, Ohio





RADIOGRAPHY

Coronaless Roentgen Generator



100 Kilovolts

at 60

Milliamperes

ONLY after actual trial can the Roentgenologi t app ectate the u up ed ease of co trol e treme flexibility and the timost convenience of the Acme Internatio 1.5 x Sixty C onal 8 of a rator

Of such a size that it can l radly m unted in the smill est liberatity it has implee pointy for all riding raphic and finoscopic works dequilifinotegreat capacity than that of may much live machine

While scare by I rest than the orin s 5 30 M A transf merif restifictions to be a televers more rectified outent to higher oft ge

With its size and c pacity t presents the solution of the pr liem of install g efficient \ R) app tus in the office or I borat 1; when p ce is I m ted

Ill strated d scraper lateratu e o regrest

ACME INTERNATIONAL X-RAY CO

349 West Chicago Avenue Chicago Illinois

Sales a d S r see Pepresentatues in All Localis es

x lu ive Manufa tu f P 1 ion Typ Co onal Apparats

VALUE OF ELECTROTHERMIC METHODS IN THE TREATMENT OF MALIGNANCY



The above is the title of an important article by DR GRANT E WARD of Bal timore. It describes some of his work with the WYEIH ENDOTHERM at the Howard A Kelly Hospital

A teprint of this article will be sent to any physician upon request mentioning this Journal - no obligation

WAPPLER ELECTRIC COMPANY, Inc

THE POST CAUTERY PORTABLE COMPACT DURABLE

NO RHEOSTATS OR ELECTRODES

Works on A C or D C

PERFECT EVEN HEAT SOLID SILVER KNIVES

\$30 00 with any ONE instrument except No 5 With No 5 \$32 50

Add tonal In turn na \$1250 a h

(All Ar It by bi) A Datin t Inn p ton

Ed ad & Eml 5 gard

Ci I SG0623 Reg

If Yor Supply
use Cann tS & Y Writ 3



POST ELECTRIC CO, Inc
30 E 42nd St New York

The Alpine Sun Lamp—Standard of the World



HANOVIA

MORE than twenty years ago this QUARTZ LAMP was the pioneer lear after year since our efforts have been devoted to the developing and improving of its mechanical construction and therapeutic efficiency so that today it meets all the known clinical requirements for the intelligent and successful use of Quartz Light as a therapeutic remedy in the treatment of disease

Other HANOVIA Lamps KROMAYER LUXOR

CLIP AND MAIL

HANOVIA CHEMICAL & MFG CO New k N J

Plusend middee pt It at No 37 on th HANOVIN QUARTZ LAMPS with rip int of thor a pape in Quitz Light Th ps

lamparully ted nith tem nit of

D St et N mber

C y St ze



For Human Inhalation S S WHITE

NON-FREEZING NITROUS OXID N 1 491 740

and OXYCEN

Two g es that a e spure it p sibl to mak anes that ga es with present d y ese tific kn wiedg. They are They are the fruit of sperience gained in ma y years of effort to produce the prat of gs es Absolut leanines in very department of production and rigid t is mou e th m int nan e of this

n 21 e And No Premg N trou Ded d e ted p oces elim nates all water vapo during manuf ctur Ther t no n ed f r hot w ter bag tow ! t to main

WHITE NON FREEZING NITROUS OXID AND UXIGEN Ou R fill ng St tions a sur prompt d | ri

th ough you d ler The S S White Dental Mfg Co 5 nee 1844 the Standard

Philadelph a

The New Method of Blood Transfusion

So simplified that this operation now becomes one of minor procedure MIE difficulties hitherto

associated with the transfusion of blood have been eliminated in the new method perfected by Dr Harry Ko ter of Brooklyn Y Its simplicity and effectiveness recommend it to every I ractifioner

By this n thod 1000 e c are tran lerred in less than ght m t no blod lost the ne at n nt suljet to m

el poly dele

ppa atu re co t n d 2 n (th M d 11 sec f h i prated sent for ep

erd to prick app i at s

M nul ctur d by J SKLAR MANUFACTURING CO

Wh I I Only 133 (4) FLOYD 51

BROOKLYN N Y

J Ski M 133-141Ft 45 Breekly Ge I men Ple se se i m

Afdress S Sa N pply

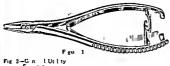
New Operating Scissors and Needle Holder

By EMMET A PRINTY M D

D tor Ch go L borat y of Su g al Techn que

V MITTLER & COMPANYS MODELS

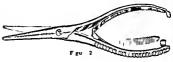
The dangushing fature of the naturment But at dan the fact that e ch tre tonafitufa r donon d byman of apoj tng fing or pn tnth shank prm tt ng of a yp kup



Fg 1-Ne dl Hold r Th jw of th ned! hold r are wde t the b for grap ng h avy needles and n rr wenough tow d th pont to handle curved n edl swith m n mum of breakage fin shed n bl ck nckel thus esly d t gush df m th n t um nt P \$750

tes es will b fund v y handy for utting 1g tu es t ad for ped 1 1 d ct on Th blad s ar w ll rounded t th b k nd point and with the a tance of th spring bly ut d f adm

ton its uesbyd vulsa n



\$6 50 Fgu 3

Fg 3-Angulat d The c sos ar po vdd with a thin well unded elongated p b pont Thy will be fund ext emely us ful n gen ral dr ect n w k nd n utt ng f sc 1 1 yers P i \$5 50

Fg 4-St lght My d ect ngtyp with w ll ounded bl des p t The project g n n ftheb nh f thi croor will n Fg 3 lwy keeps d ed ff th t ble so that t m y b ly p ked up P i \$450

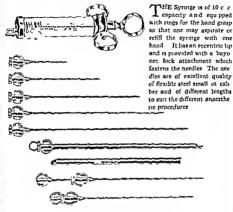


V MUELLER & COMPANY

Ordná VnBunndin Chi go lil n s

Syringe and Needles for Local, Regional and Spinal Anaesthesia

Made according to Dr William R Meeker's Specifications



Meeker's Syringe only \$4 50 each

N edle 120 mm long 10 mm d amet \$1.25 each

Merk Lab e ad Ree ad Burret up ad p mpbly

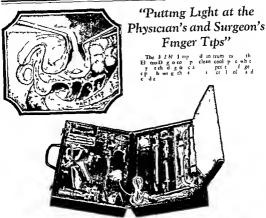
Med by

SHARP AND SMITH

General Surgical Supplies

CHUCAGO ILL.

65 EAST LAKE ST



C m on D Luxe Elect o D gnosto t \$500 00

PROVIDES Transillumination Direct Illumination proved Instrumentation for all phases of major and minor diagnostic operative and therapeutic procedure. This outlit comes complete with Electro Cautery Procto Sigmoidoscope and other Jamps and instruments all in one alligator leather case as above illustrated. All lamps cords and necessary parts of instruments will withstand sterilization by boiling or steam pressure. Built to give service and sold with en vear guarantee. Exhibited at the Clinical Congress.

No



City

In sed when gepy of Dg by Thme thed bo

CAMERON'S SURGICAL SPECIALTY COMPANY
110 112 W Oak St CHICAGO U S A

KIELLAND OBSTETRIC FORCEPS



Their use presents a definite advantage in delivering babies when the head a high and when the occiput is not in the anterior half of the pelvis

Rotation is easily accomplished without danger

Biparietal application is always practicable

They do not slip because there is an equal distribution of pressure all over the skull

The introduction of the anterior blade is accomplished easily and without danger of lacerations

The users of the Kielland forceps have expressed favorable opinion and the majority of them declare the new instrument to be a definite advance in obstrines S Mbv

CHARLES LENTZ & SONS

M nuf tu 33 South 17th Street of HgA G & Sug lintum at PHILADELPHIA

SACRO ILIAC



Made of strong moleskin cloth with a thick triangular pad pressing in the sacrum while the inac bones are pulled back by lacing and straps. Send circum ference measure three inches below crest of ilium

> Willisco Sacro Ileac Belt

Price \$7.50 Send ! Su gs I In truments and

Ho pital Suppl e

O ling to I bag att hed to I g E tri Send I New Books: 156 page = Bla-Sock = Trans = U nol

JEFTERSON SUPRA PUBIC APPARATUS



Price Complete \$20 00 Se JC rount re 18od

The apple and here an open germ de de thy not the bladd it can st of met leup with nel fitted soft rubber med no til to when tit ched

WM V WILLIS & CO

COLOSTOMY APPARATUS



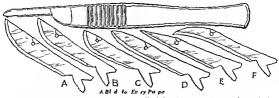
Deta d b DR J COLES BRICK.
This appliance is used
where an opening is made
in the colon. It consists of
a specially shaped metal
rin, over which a rubber
bag is placed to receive the
contents. This apparatus
is simple and effective

D Bik Colost my
Apparatus—Compli with
Two R bb Bg \$5 00
E tra Bag \$1 00 E ch

225 S 11th St Philad lph P

Castracane Interchangeable Blade Operating Knife

1 Handle - 6 Different Style Blades



The blades are made in 6 different styles to afford the physician a selection from which to make his choice. The univer-al hardle fits all the blades. Blades are thin like safety razor blad a and are sharpened to razor edge. Each blade is hand sharpened and honed

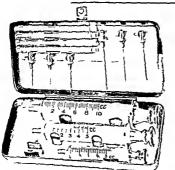
ELIMINATES OBJECTIONABLE FEATURE

The outstanding feature of this knife is the case and rapidity with which the blades can be slipped into place and removed. Once in place the blade is rigidly held and cannot slip. No more cutting your finger or glove when putting the blade in place as is the case with other types of detachable blade knives on the market. The blades are cheap enough to throw away after using several times therefore you always have sharp clean knives with which to operate

UNIVERSAL HANDLE

BLADES-State style desired

\$1 00 Each \$1 50 Per Dozen-\$15 40 Per Gross



Harold Syringe Outfit No 650

Extremely Compact Always Convenient FITS IN VEST POCKET

Contains 1 Harold 2cc Luer Syringe 1 Harold 5ce Luer Syringe 1 Harold 10cc Luer Syr inge and 6 Needles as sorted sizes and gauges

FREE OFFER

Wth houtfit w will up ply 4 tubes che tin g 20 tab! is st y home ph te I mgm m de by Park

HAROLD SURGICAL CORPORATION 115 Fulton St [41]

We Have the Honor to Present to You



a newly perfected Anesthetizing and Tonsillectomy Outfit of outstanding qualities

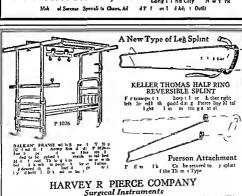
It is the n w So ease No 460 which is 100% effici t fo Offic Po table and Ho p tal use because

(2) Snap-fit Bottl Holders do away with scr ws a d clamps. Set bottle in pl ce pick toff—that s all. (Patent pending)

(3) Pressure to trol d seris air does n t hold t back gainst the pump No strain o pump No saf ty al e needed.

Fr th rest, plase sk f special fold which rest ry d tall f this dimirable of fit a d hows embinations f reflect d hospital use

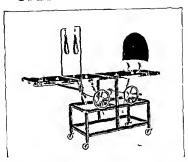
C M Sorensen Co, Inc (Quan bore flam 15 ml from Tim 5q Long 11 and City N wy rk



128 SOUTH 19th STREET

PHILADELPHIA

THE MOST VERSATILE OPERATING TABLE



THE U.S. Army Model Major Operating Table is adjustable to every operating position except those requiring lateral tit. It is controlled by two large and easily accessible control which which may be placed on either side of the table. A notable feature of its adjustability is the fact that the Mayo kidney position as well as more extreme positions of lordosis are easily obtainable without the use of a bude.

Monel Metal Top

The Major Table is constructed with a non corrosive Monel metal top with heavily inckel plated accessores. The base is make of bary seed tool ng security torch welded at all joints. It is finished in washable white enamed and equipped with rubber tired casters with brakes to prevent the table from moving while in use.

6SG714 USAM; Opering The Millet Itp \$16000 6SG716 USAM; OptgThl whiten mit 1 top 13000

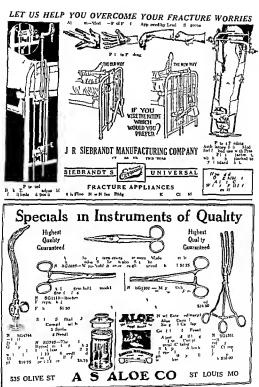
Write for Special Terms

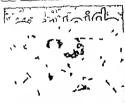
THE FRANK S BETZ COMPANY

HAMMOND IND

6-8 W 48th St 3213 Sw A NEW YORK DALLAS TEX

634 S Wab h





Surgical Dressing

stays where placed—saves time in dressing and is more comfortable for the patient

Perforated Cilkloid

Is applied direct to the wound as a Non-Adherent dressing. Air and draininge are provided for through the prioritions of the Transn. It is are kr.

skin g burns

3 m 44 yds \$1 75

Impervious Cilkloid

ts i on agreent when use i for draining purposes. The double we gist is preferred it y many surgeous on account of greater strength and is only lightly more expensive surgeous is 25 30 single weight \$100 for roll 3m x 4 yes.

S ld Th ough Inst um nt and Supply II uses

Smpt on Pq t

THE CILKLOID CO

MARSHALLTONN

201214

Finest

razor steel

-and a new keen edge whenever you want it

BARD PARKER blades are made of the highest grade razor steel fabricated in Shef field and rolled to private specifications in this country. This steel takes and holds a keen edge for surgical purposes.

The edges of Bard Parker blades are ground by a special process resulting in a high degree of saint factory sharpness. This sharpness is addony sharpness a seddom of the top the varying conditions through which blades must pass in usage affecting term per and other properties of the steel.

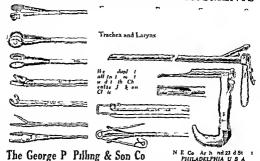
By this multiple process a new and perfect edge is produced at a lower cost than that of grinding in dividual blades

When a sharp knife is required a new keen Bard Parker blade slipped onto the handle sayes the time and half the cost of re sharpening an ordinary knife

One No 5 (new style) han dle and one half dozen each of Nos 20 11 and 12 blades \$3 75 Agents every where

BARD PARKER COMPANY INC

PILLING-MADE CHEVALIER JACKSON INSTRUMENTS



A New Chicago Office

To meet the demand and to provide ade quate service in the Middle West for



Ro r

BOLEN

Supporters and Binders

P st Operat v
Sacro-li St n
M t m ty
G t opt

Send Your Patients or Write

BO - CT IDING CO

The Specialist and
The General Practitioner
both find ESICo
Excitally
light States

intaluable in diagnosis

III m ted E Spd To gu Dp

Ih of; N th Ed t of t C tal gu

Electro Surgical Instrument Lo

Gelni-Bubis Weighted Vaginal Speculum

A two piece self retaining speculism modified and improved by Dr. I. L. Buhis of Mt. Sinai Hospital Cleveland Ohio

Is very useful in all gypenlastic operations following childbirth also in all gynecological procedures through the vagina

The tension on the soft tissues is easily regulated by the patented LOKTITE and by the thumb screw on the weighted retractor

No surgery or delivery room should be without it

Brooklyn N Y







Most powerful surgical head light has a standard 75 watt nitrogen bulb Especially useful in gynecological rectal obstetrical or deep abdominal work

No n

J E Kennedy & Co SIRG CAL INSTRUMENTS AND FOLD MENT

"VIM" Stainless Steel Needles for Your Dunn Local Anaesthesia Outfit ARE NOW AVAILABLE STAINLESS STYPE Novel



SEND ONE DOLLAR

FOR TRIAL PACKAGE



\$2

"A Stick for Each
Application"

Send to your regular dealer who will redeem this advertisement thru

TAPPAN ZEE SURGICAL CO Mírs Box E Nyack N Y

Smith Bone Clamps

N Scree Are U ed
The climp pily a sumbon geynon m thya y th relamp thy pily a greet by pily piled danct by m d drouste n s d other s

SMITH BONE CLAMP CO W W NY



Seven Section Skull

Disclos g everything of interest t th Eye Ear Nose and Throat speer let and to the C anal urgeo



E B MEYROWITZ
SURGICAL INSTRUMENTS CO
N w Y

TADE MARE STORM TRADE MARE Reput not & Abdominal Supporter Pat nied)



Est Tot

TRANK

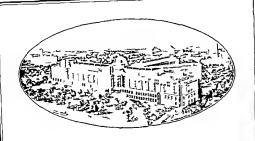
For Men, Women and Children

F Pt Hen Pegnny Obesty RlaxedSa o-ll At: Itions Floating Kild ey High d Low Ope ton t

Ask f 36-pa ill rated Folde Maal rd ra filled Philad i his niy-

Katherine L. Storm M D

Digina er Pre I Owner 4M k 1701 Diamond St eet Philadelphia



An Invitation to Physicians

PHASICIANS in good standing are cordially invited to visit the Battle Creek Sanitarium and Hospital at any time for observation and study or for rest and treatment. Special clinics for visiting physicians are conducted in connection with the Hospital Dispensary and various laboratorics.

Il), god tigly lm, gust nicem mod instills sewhole return he prologed by fibed to dit Nohgammed toly nafo gulmdle mit no tretuni Spelte fit to tad mid litt to religious depolation mobel the ply finly

t || t t d bo ki t t ll g f t b O go I προσε IM thod f th t t t py
f th re t MΓDICAL BULLETIN neem t f 1 cs ll he se t free
pon q t

THE BATTLE CREEK SANITARIUM BYTTLE CRLEK MICH



Camp Maternity Garment

DOW abdominal support grading from firmness at pelvis to a flexible line at top of gridle lifting but not con stricting across the center abdominal region. The patent Camp adjustment original and exclusive to our garments provides a regulation as to size and degree of pressure as desired for confort and growth.

In addition to the addominal support this wonderful system of adjustment gives a firm support through the back especially through the sacro-interegion. In the casy manufulation of the adjustment the support of the entire trunk of the body is regulated affording a perfect uplift from under buttook to publis.

All sagging and over strained muscles are relieved gently but firmly all of which reacts to mental and physical buoy ancy. Belts to be worn from period of fourth month to time of confinement.

S H CAMP & COMPANY Manufacturers
JACKSON MICHIGAN

RADIUMTHERAPY

In the minds of m y physicians the use of Radium is associted only with the treatment of malginant disease but its use n non mal giant condition in actually forms a broader fill of tuefule iss. Good results are being reported with radium in such could tons as more able to treggiter certain types of uterin fibroids ute in hemorrhage tuberrular adentis angiomas and many types of subsecute and the nesslane in a single part of the properties of

As a st pplementary service we offer RADON (ad m em tion)

RADIUM CHEMICAL CO

PITTSBURGH PA

NEW YORK BOSTON CHICAGO

Pertinent facts regarding

DIGITOL

Fincture Dicitalis U S P Strength)



D g tal z S dl g

Comparative tests by the U S Bureau of Hygiene (Bulletin 48 December 1908) and the American Med real Association (A M A Journal September 13 1913) have proved the activity uniformity and superiority of Mulford Digitalis

Distroit is produced largely from the leaves of Digitalis plants grown on the Mulford drug farms where climatic conditions are ideal for growing this crop. Every step from the selection of the seed to the finished product is under scenatific control.

Furm h d in one ou ce vials only to insu e a aimst deter or t on

H & MULEORD COMPANY PHILADELPHIA U S A

The state of the s

THE STANDARDIZED PHARMACEUTICAL HOUSE

Neosalvarsan "The Dependable Original" Mid nithe Unit d Stit nist it conformity with Ehrling o se and formul Go room nitre to Ou obly ton of pons bl helpfuln town d pract ton 0 15 g m \$ 60 mmul 11 01 65 nd p tent being fulfill d 111 0 49 70 thoughth m dum of low 06 80 0.75 90 bl by quant ty p oduct on 0.0 1 00 \$1.00



Oats Now the Quickest Breakfast -Doctor!

Will you help us spread the news? HOT OATS no dge - net n t

ee to f em utes! ly o you D eto to telp s adv to the t ble On ch Ovake

b for the coffe In Il Q 1 k Quake ttle the br ak Its fod sle you kn s vell o fette tlan do s I light d to off phy ans Q ake Ot mid It k ooking





WY ON THO WW

PERMAMENT D@Me

Genuine Faithorn Case Records MERICAN COLLEGE OF SURGEONS

SEE CHICAGO CLINICS

Physicians and Surgeons visit ing Chicago are invited to take advantage of the

CLINICAL BULLETIN OF CHICAGO

Complete information is avail able therein concerning all clin ics special courses and matters of particular interest to the profession No charge except for daily special delivery postage

THE CLINICAL BULLETIN OF CHICAGO

40 East E e St t Chcgo

The New York Post-Graduate Medical School and Hospital

Courses in Ear, Nose and Throat
A BASIC B ADVANCED

Each of these Courses Extending Over a Period of Three Months May Be Begun July 1st [1925

iFo of roat on add s

THE DEAN 303 East Twentieth Street New York City

RADIUM RENTAL SERVICE

Radium loaned to physicians at moderate rental fees or patients may be referred to us for treatment if preferred

Careful consideration will be given inquiries concerning cases in which the use of Radium is indicated

BOARD OF DIRECTORS

Willim L Bum MD N Spot H ny MD F dick M ng MD
Loui E Schmdt MD Th m J W tkin MD

The Physicians Radium Association

Tiphon Cent 12268-2269 CHICAGO, ILL WII m L.B wn M n g r

GORGAS MEMORIAL



OFFICERS

The state of the s

BOARD OF DIRECTORS

H R JAL

B an D

Fau FR M MD

G & W Chi MD

S I MINT MD
BY STMCOTE MD
JOB J B SS TYMOS
B G R E N
A 4-F CC
B Limano I Rage P so
G M R 10
L S R W

MRE ID

8 R.W

L Sc wm rrs M1

A.S MD

D STRW by MD

AB NA E AR STRY

EE EI W UPE M

A Foundation Controlled by the Practitioners of Curative Medicine

OBJECT To improve health and prolong life by developing co-operation between the public and scientific medicine

METHOD By means of a comprehensive national publicity program to cultivate a public opinion which will recognize in scientific medicine the source of reliable information and the final authority in all matters perfuning to health

Encourage frequent physical examination of the individual by the family physician Foster research in tropical and preventive medicine

ORGANIZATION STATE GOVERNING COMMITTEES 75% of whose person nel are progressive medical men and 25% influential laymen and women will direct this big health movement

BUCOME A FOUNDER MEMBER OF YOUR STATE GOVERNING COMMITTEL NOW and

GORGAS MEMORIAL

INSTITUTE OF TROPICAL AND PREVENTIVE MEDICINE

I spreen to I the plend of w k of G we I William C wid G g x A Se tiM ukund da Rent trill many I hereby berbenyeit mende ith Gonn C monitee the G g M man ki hat troped dP et M d kind cherchy subserbe the run of On II dred D II not the \$5000 000 E d wm t F ud paym to t b m de a flow

S go ture

all checks y D ; O on hi m I let I O Reys les T ess to Chinaco. I



CONTENTS-MARCH 1925

ORIGINAL ARTICLES

30,

210

323

334

336

- 1 THE RED SIGNACH J ST. 1ker M.D. F. I.C.S. 7h. High. H.M. et.
 2 Inveriences with Blood Replacement. During in After Major Intralegatal
- OFFRANCIS LYIE DIES WD Client of Haven Cally WD FICS Bat i
- 3 RENAL LAHLIOS ATA AND URITHRAS IMPLANTS THEIR SURGICAL TREATMENT IN THE LEVALE WITH REPORT OF A CASE D gal B z Il M D I 1 C.S. New 10 k
- 4 THE APPLICATION OF FACTS AND OPENING RESULTS C FRO I LABORATORS EXPERISSING TO THE LEACTICAL WORK OF CANCER CO TROL CO E 1 S to 1 h D. No. 1 k
- 5 CANCERT SECTION AND ALD FACE CINCIL
- 6 The Livering that I robottly of Medatasting Carcinoma in the Breast of the D ca of binary fitterioms Many Kepsated N. Liatino of a Miller security of Liatino from Huma Benast Carcin. J. 18. N. n. V.D. Cle 18.
 - S BECLINICAL ENDINCE IN LAY R OF THE ENTRINSIC ORIGIN TO CANCER 18 of the 18 CONTROL OF LOS NOT LOST ASSOCIATION OF LOST ASSOC

CO 15 D DE 5 EXT DAG



Hyclorite Has Solvent Action

Drs Austin and Taylor of the Rockefeller Institute New York writing in the Journal of Experimental Medicate on "The Solvent Action of Antiseptics on Necrotic Tissue" state that "the solvent action of Dakin's Solution is due primarily to its hypochlorite content and that "Dichloramine T and Chloramine T do not exhibit solvent action".

The same authorities have shown conclusively that a Dakin Solution made by dissolving chloramine tablets or powder is not alkaline and has no solvent action on ne crosed tissue.

HYCLORITE being of standardized hypochlorite strength and and special alkalmit; ensures rapid solvent action. A Dakin s Solution can be made in one minute by merel; adding the required amount of water to HYCLORITE.

No waiting filtering titrating or adding other chem taken and the resulting solution is decidedly less irritating HYCLORITE has seeen or eight times the strength of Dakin's Solution made in the usual way

HYCLORITE'S concentration and preparation by special electro chemic process assure its remarkable keeping qualities

HYCLORITE IS ISOTONIC

Accepted by Concilon I harmacy and Chemistry of the IM IN R. R.)

Hette for sample and literature to

BETHLEHEM LABORATORIES, Inc

300 CENTURY BLDG PITTSBURGH P4

Boiling instruments still the safest sterilization

ONG p ven steril zat n techn q mands ti t matrum nta be b iled w te f t m ut and that they be remo d mmed tely with ute ntam at

Cas Le st lze flw only the l g



to use

Dry heat an unc t n ag nt ndmy je tumnt

Castle Sterili ation is based on proven authority

CASTLE

CONTENTS -- MARCH 1925 -- CONTINUED

ORIGINAL ARTICLES-CONTINU D

Q UTERINE MYQUATA AND PREGNANCY WITH SPECIAL REFERENCE TO TUMOR NECROSIS P Brooke Bland If D Philadelphia 367

UNILATERAL FUSED KIDNEY Hermon L A etschmer M D F 1 C S Chicago

- 10 VAGINAL CYSTS Lee M Miles SB MD Peking China
- 11 GAS CYSTS OF THE INTE TIME WITH REPORT OF THREE CASES H II Mills WRCS (Er) LRCP (Lond) FACS San Bernard no Califo ma
- 12 A PERITONEAL SAC CONTAINING THE SMALL INTENTINE COMMENTS ON LINK OF THE ILEUM Douglas G Reid M B (Edinb) Cambridge England 400
- 13 FIBROMATA OF THE MESENTERY WITH THE REPORT OF A CASE Joseph L DeCon by M D and John J M lonev M D Cincinnati Ohi
- 14 THE SURGICAL TREATMENT OF TYPHOID CARRIERS IN THE GOWANDA STATE HOSPITAL Walt II losbu g M D FACS Dunkerk Yese York a d Anna E Perkins M D Helm th New York
- 15 I LPOMATA OF THE SIGMOID John T Moore MD F 4 C.S Houston Texas CONTE. IS COMMINUED OPPOSITE IN MY PAGE

404 497

360

381

387

402



Progress and Scope of Quartz Light Therapy and Hanovia Quartz Lamps

The Alpine Sun and Kromayer Lamps

Poneer In 1905 The St ndard of the Wold Today

These Lamps hav the entir quartz me cu y anodetypeodbu ne mad in sw unplant the th a peut c b1 ty of which has long since been proven

For forma ion. Request to 37 ASK YOUR FELLOW PRACTITIONER

HANOVIA CHEMICAL & MFG CO

NEWARK N J NEW YORK CHICAGO SAN FRANCISCO

Before recommending or purchasing any operating light or lighting system every Surgeon should thor oughly investigate

SCIALYTIC

Shadowless Operating Lights

Heat Glare and Head shadows absolutely elimi nated by the Scialytic principle - a new principle employed in no other lighting system

Silyt with adjut bi u o nsl n

If your dealer cannot supply information write direct for full description

B B T Corporation of America Ph I d lph sto Atl nti Bu ld ng

Surprising results you will obtain in the treatment of-

Pnaumonia Fractures (delayed muon) Traumatic Injuries Arthritis Endocorricities

By the use of

The removal of many henion and malionane foreign drowths—

Cutaneous Cancer Lunus-Warts Chancroid **Polypus**

By the use of

Medical Diathermy Sureical Diathermy

Send for our reprints of articles which have appeared in some of the better medical journals covering many of the above conditions

THE LIERCL FLARSHEIM CO. (Se vice Department)

CINCINNATI OHIO

31f

415

121

126

128

131

CONTENTS-MARCH 1925-CONTINUED

ORICINAL ARTICLES—C NEWS IN

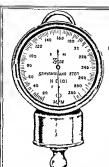
- 16 RESULTS OBTAINED WITH THE I RESOLUTE TRACHIOR PHYMALEIN TEST OF LIVER FUNCTION D C Bill M D id I. B uma M.D. Ven 1 B
- 7 EVENTRATION OF THE DIAPHRAGM WITH REPORT OF 7 CASES J Russell | erbrick J M D Il ashi reto

DEPARTMENT OF TECHNIQUE

- S IN UNU LAL TYPE OF LARALITIC ABDUCTION DEFORMER OF THE HIP AN OPERATION F S ITS CURE Le Mover M.D. Ven 1 &
- O I METHOD OF INDICENCE THE SMALL INTENTINE LARTIALLY TO FUNCTION DURING THE COURSE OF ACUTE DIFFUSF LERIFONITIS John F L cland M.D. F. L. C.S. Middle In to de t 1 1
- O ANATOMICAL EXPOSERY FOR JEJENOSTOMY I S R din BS WD Philad lphi THE TREATMENT OF PARLITIS OF I REGNANCY WITH RETENTION (INDIVELLING) URETERAL CATHETER REPORT OF A CASE Join O Rest BS WD LLD FILS Mobil Hab me

CORRESIONDENCE.

SUBCUTANEOUS EMPRISSENS FOLLOWING LABOR Ce gell & at MD New 1 & CO TE T' COATI LE O MSI E VIAT PA



The Sphygmomanometer in Surgery

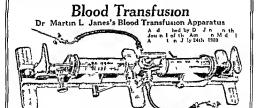
PROGRESSIVE surgeons discovered the accuracy of the Tycos Clin cal Sphyg momanometer ten years ago

Today no surgical procedure is considered complete without the data offered by either one or both of the Tycos Sphygmomanom eters—one for diagno is (illustrated) the other for the operating room

The acceptance by the surgical profession of these instruments as standard is proof of the constant accuracy of the Tyeos

Taylor Instrument Companies

Rochester N Y U S A Can dan Plan Tyco Bidg T on



Advantages

A ONE MAN APPARATUS N a ttn y T (m y u m n ent h m ti tm de mpl d y

-- lun ym k

L J LOOMIS & COMPANY Inc

17 W t 60th St cet N w Y k C ty

Pituitrin

THE ORIGINAL PITUITARY EXTRACT

Knot

PITUITRIN match fit p paratio f takend vr d bttr a d l bor ft tad d protet mpl y d the w ld vern unt rta, and frotherd fite d cat saw il

In distorts the accusty aff rid dry'd wild ra dad aton very place of Pt the solid rate of the property of the solid rate
PARKE, DAVIS & COMPANY

PITUITRIN IS INCLUDED IN THE N N R BY THE COUNCIL ON PHARMACY AND
CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION

CONTENTS - MARCH 1925 - CONTINUED

EDITORIALS

The Use of the N Ray in the Treatment of Cancer of the Breast $\ \textit{Frank}\ \textit{F}\ \textit{Binis}\ \textit{M}\ \textit{D}$

Tur Drep Stag 1 P Blaz M D

MASTER SURGEONS OF AMERICA

FRANK BULLER II Cordo t II Byers II D

THE SURGEON'S LIRRARY

OLD MASTERPIECES IN SURGERY HARVEY'S CIRCULATION OF THE BLOOD 41fred J Br wn

REVIEWS OF NEW BOOKS IN SURGERY

N.II or C. free Gary II Lf of Back B V or D ... to be II on set—Diver a recover plan II deck.

Th. Creckstery D b f h E m. Backet E ... AT set On back II or MRCS Free Company and D set Deckets By Low MRCS Free Company and D set Deckets By L

AMERICAN COLIEGE OF SURGEONS

Appears of the I resident By Ch il s fl Voyo UD FACS Rocheste Minnes !

FACS Rocheste Vinnes! 447

41.

428

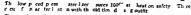
439

444

PROMETHEUS

A PRESSURE STERILIZER YOU CAN AFFORD

Cost But Little More Than an Instru



This terl eris 8 ded meter nd 16 n long giving mpf soom for d ing and I nen
It very mple to use d 1 q c but I tile atte sion. It i rilize the dressing under 15
pound pri ure and then d h m



PROMETHEUS ELECTRIC CORP

358 W 13th St New Y rk C ty

Send m ompl t details f th low price Pressur Ster

suzer

Nam Addre≤

N me of Dealer

وسده وسده وسده وسده وسده وسده وسده وسده

RADIUM EMANATION

"Service"

The Most Important Ward in any Language

W. HEN you use our Serince you have the assurance that you am getting the advantage of every new and particulal facility for the application of Redom Emanstron (Radom) in the treatment of disease Refinements which cost you nothing but make for greater value in the application of Radom Emanstron and the endingue in this therapy Radom Emanstron furnished in any desired concentration—tubes or seeds

Medical Staff available for consultation as to douge and trehnque Informative literature on request

THE RADIUM EMANATION CORPORATION

250 W at 57th St. New York C tv



Tel pho

Patuatran

THE ORIGINAL PITUITARY EXTRACT

PITUITRIN w the fit pep rate ftkd raadir the dit te It a tad dp od et mpl y d the w ldo r t tan

Am gpitry extract Pitenshidd b prind bet tahryath sam Ey itd hlyteted—fit fitan blod pray of trusfit at mul Whi thiphy are notatap prat fish kid hat ratify by the hold that homy of down the deg of a die od than bera to fift e In addition to the active afford by double standardizate ry package of Pt t n in dated.

tag a y is fy up cfy yo drf ptut ry extract Ptut The d PD&C

If S rgic IPt in w ted pefyPt t S Th p p of P to tn -1 q val nt t 2e f th latte Pt et n S I twee th at e gth te mm nddir ob tenc l'u e

PITE TAIN & PITEITAIN form I i stope has 5 I-ee stope as by s il Piti 1976 s if malejii no kni

PARKE, DAVIS & COMPANY DETROIT - MICHIGAN

PITUITRIN IS INCLUDED IN THE N N R BY THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION

CONTENTS - MARCH 1925 -- CONTINUED

EDITORIALS

THE USE OF THE	١	RAY	r	THE	TREATMENT OF	CANCER OF	THE	BREADT	F ank E	Bunts	
W D											435
THE DREP SCAR	ι	PI	Blos	if	D						10

MASTER SURGEONS OF AMERICA

THE SURGEON'S LIBRARY

OLD	MASTERPIECES IN	SURGERY-HARVEY'S CIRCLEATION OF THE BLOOD	lifed I B men
	MD FIES	Omeha	19 1- 7 2 028

			BOOKS I	V SURGERY			
Wallam Crawl of Gorga II Lif	ad Nork By M	Same D	A tome	И выпе⊸D(кг	ive	T pot pha	Rv

Gorgas and Eure J II		445	R	man entire t	ac These bud	By H
The tarcula ory D b Ga greate, Vanomotos Ratter 6 1	d Troph	E estectig Incorden B Leo	ATR & D	r boped unter	y By Roy I Tak ma	мD

AMERICAN COLLEGE OF SURGEONS

Address of the I resident By Ch let H Mayo MD FICS Roth ste Min tesolo 171

447

438

430

444 445

PROMETHEUS

A PRESSURE STERILIZER YOU CAN AFFORD



Cost But Little More Than an Instru ment Sterilizer

This I w priced p sure at ril r i my a 100° terlur t n fety. Ther an I ger any cus for ne r terl at n with the idition d g that

Thi terilizer & in in d d m ter d 16 in long gava gample oom fo d grand linen. It we yample to u and requebtlet strar it teriz the d ngs under 15 pod pe and then drest bm

PROMETHEUS ELECTRIC CORP

358 W 13th St N w Yo k Cty

Sed m complet dt is fth i w pric Pres Str Nam Addre

N m f De ler

RADIUM EMANATION

"Service"

The Most Important Word in any Language

WHEN you use our X-roce you have the assurance that you are getting the advantage of every new and practical facility for the application of Radium Emanation (Radios) in the treatment of those Refinements which cost you profung but make for greater value mike application of Radium Emantion and the rechange in this therpy Radium Emanation and the rechange in this therpy Radium Emantion Emantion of the rechange of the rechange of section of seeds

Medical Staff available for consultation as to dosege and technique Informative literature on request

THE RADIUM EMANATION CORPORATION

250 W c 57th St. N w Yo k City



Tipho Crel 3649

SURGEONS! Link Up Your Operations with an Operating Table worthy of your skill



The Ohio Mobile Pedestal Operating Table No 2 with its lateral tilting positions gives you a latitude which is most destrable



Sem Trendelenburg Tilted Left Hand



T endelenbu v P



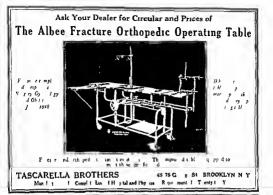
Reverse T end lenbu g T leed R shs Ha d



T end lenbu g T leed R ght Ha d

Write today for full description and terms

F O SCHOEDINGER, Manufacturer COLUMBUS OHIO U S A



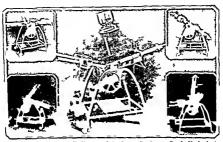
INDEX TO ADVERTISING

RADIOGRAPHY IN ANY POSITION

WITH THE NEW HUGH H YOUNG X RAY UROLOGICAL TABLE

EXAMINING - OPERATING

- TREATMENT -



Designed by Dr Hugh il Young of the James Buchanan Brady Urological Institute Johns Hopkins Uni creity and Hospital Baltimore Maryland

EFFICIENT - PRACTICAL - DURABLE

Nothing has been spared to make this the finest table of its type and to attain the ultimate perfection which is embodled in it. Nothing is lacking—it is a table which gives every possible mechanical assistance to the operator.

K dography in Ny po to is cc m pl hed by mes s I th s w IF Flat Bucky Dashragm. This n w dusphased is and calogy of the control of the tabl. Here may dast ct d utages that me to the control of the conlible cm as integral p it of the to c de c ind all fa way folk for all d f it holder many mad graphy possible in matt in what post it fee it bl is p to de



THE NAME WOCHER IS A GUARANTEE OF

The mpl ym t of a spe all perma et yr c tered tube stand makes th taking i good radi graphs ompr t vly sample procedure. If ye sould be a general to the control of the con

or this QUALITY loosening 1 is to his
Write for our Ill strated Booklet

THE MAX WOCHER & SON CO
Surgical Instruments - Sanitary Furniture

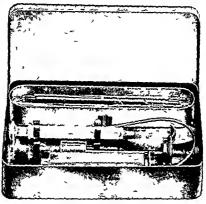
29 31 WEST SIXTH ST

CINCINNATI O

THE GENUINE ORIGINAL

LABAT OUTFIT

FOR LOCAL REGIONAL AND SPINAL ANESTHESIA
As Used dR comme dd by GASTON LABAT MD



LABAT OUTFIT FOR INDUCINO REGIONAL AN ESTHESIA

THE METHOD OF THE FUTURE

The youn, surgeon should perfect humself in the use of regional anesthesia which increases in talue with the increase in the shill with which it is administered — While Man (Labat Reg. nil Anesthes W B S anders Comp. y of Ph. list liphus 1921)

This sike Outst Syr 5 s a A delesthat a han on \$ 522 23 Reginal Anesth s a lit Te ha ca & Cl a cal App c to labout H B 5 and r & C)

NOTE DEMAND THE ORIGINAL AND GENUINE LABAT QUITEIT SYRINGE AND NEEDLES.
TAKE NO SUBSTITUTES, IF YOUR BEALER CANNOT SUPPLY YOU WRITE US.

THE ANGLO-FRENCH DRUG COMPANY 1270 BROADWAY NEW YORK

S & I In trum t Dep rim t

2406 6

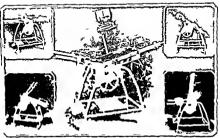
RADIOGRAPHY IN ANY POSITION

WITH THE NEW

HUGH H YOUNG Y RAY UROLOGICAL TABLE

EXAMINING - OPERATING

- TREATMENT -



Designed by Dr. Hugh H. Young of the James Buchanan Brady Urological Institute Johns Hopkins University and Hospital Baltimore, Maryland

EFFICIENT - PRACTICAL - DURABLE

Nothing has been spared to make this the finest table of its type and to attain the ultimate perfection which is embodied in it Nothing is lacking—it is a table which gives every posable mechanical assistance to the operator

R dop phy na w postin s crom planed by mean it the new LF Flat B & Darger to the new LF Flat B & Darger to the new LF Flat our-ed type of the new depth and our-ed type of the new dwith this table offers may distinct of a tagges It be omes n migral part if the top with inserves also as or if t One ed exist of all the way to the per neal end if is table making and graphy pos ble om titer in what po to the table is placed.



THE NAME
WOCHER
IS A
GUARANTEE
OF
OUALITY

The employm nt f a pecual perma ne thy center of the bar king of good rad graph a c mp ra ance of perfectly c te ed the based of perfectly c te ed the based on perfectly c te ed the bar permanent of the control of th

Write for our Illi strat d Booklet

THE MAX WOCHER & SON CO Surgical Instrument - Sanitary Furniture

29 31 WEST SIXTH ST

CINCINNATI O

B-D PRODUCTS

Made for the Profession

Magnified 50 Times

As you focus the lens of a fever thermom eter the visible mercury column is approximately a fifty pour magnification. The actual column behind this image is less than 1/1 of an inch in diameter—thinner than a hair—almost in visible.

Consider then the crystal punts of the glass in a B D Fever Thermometet—glass which must amplify fifts fold without distortion—glass which encompasses the accurate reading of hu man temperatures and upon whose constancs." life may depend

Consider its workmanship Preliminary tests are given for tuenty three standard defects—for moisture in bore—fire cracks—retreating column—defects imperceptible to the untrained eye and any one of which means rejection of the themmometer Out of every ten feet of B D Ther mometer tubing drawn less than four and a half feet ever become finished instruments

It is an achievement to produce a dependable permanently accurate fever thermometer at reasonable cost — an achievement properly realized in a B D Clinical

Insist that your dealer supply the Genuine B D Thermometer

Supplied through Dealers

BECTON, DICKINSON & CO



Lippincott's Newest Texts

ook of Pathology

M D I rofessor of Pathology Univers ty of Glasgow Western Infirmary Glasgow Octavo 778 Pages 443 Cloth \$8 50 Tilustrat ons

CHRISTIE-Roentgen Diagnosis and Therapy

By Arthur C Christe M D M S FACP Profes or of Roentgenology Geo ge Wash meton University Med cal College Octavo 326 Pages 144 Illustrations Cioth \$6 on

The a th r f m h throughout a p cts all guad therefor theo cts all c n sder t ons ha e been frth m st pat m tted

DAVIS-Applied Anatomy S th Ed t on

By Gwilym G Davi Thoroughly revi ed by George P Muller M D FACS of the Diversity of Pennsylvania Octavo 638 Pages 631 Blustrat ons in colors and black C1 th \$0.00 Thew k o like watother les athrusho tthewoldth the amoun ment f an edit nall by tel mene 1 et ! h thas been a mplet iv b ght up to date by D M n of the Una testy of Pernsylvan

BECK-The Crippled Hand and Arm By Carl Beck M D FACS Cheago Octavo 243 Pages 302 Illustrations Cloth \$7 00 I un que n'ime h n eded mon gr ph on the are types f leform tes fithe b nd and rm as a to of abso maled I pm and nyus and de ases a perbly sill tated by

WILSON AND COCHRANE-Fractures and Dislocations Treatment and After Care

By Phip D Wi n Instructor a Surge-Sir Hagld St es of Edinburgh Octavo mb.

and the best er ca e of a l

ANSPACH-Gynecology S and Ed t "

By B ooke M Ansp th MD FACS Professor of Gynecology Jefferson Medical Cli ge Philadelphi Octa o 752 Pg s 532 Illustration 5 Colored Plates Cloth \$0.00

J B LIPPINCOTT COMPANY

LONDON SI 187* PHILADELPHIA SI 1792 16 John S Ad Jphs, W C 2 East Wesburgton Square

MONTREAL 5 n 1897 Uns y B dding

In a Small Volume

All the Essentials and New in Local Anesthesia

In the preface the author says

This modern common sense book is-

The Technic of Local Anesthesia

By A E first MD FACS
Polesto 15 mmy lau my 1 E aus to
272 P with 140 O let 1 in to
Pice 55 50

You will note from this table of contents that it covers the subject just as you want it covered

TABLE OF CONTENTS

For Umblical Hi au Her I the Luces Alba d Sur Drugs Employed Technic of Adment ra so De Herrat General Operation perations the Scal Cra I Secrel Blockin P to est best Operations & Fat 1 On the Person of the Screet of Operations 5 th Ea On it Urriben Blad! Operations the T 2 A fer mode, Laryng, Traches d Thyroid Gland On the Figure Organic Alo til Ret a On th Th as La On h Epper Extreso tees Abdoms 10ptra On h Lo er Extremi set

Get this new book now Wo Local Anesthesia in a esmall lume Just write y ur nam and address of ly n th a pan below and maT

DO IT TUDYY

THE C V MOSBY CO	(2 C ()
SORNG ABIAS LIM	
Sadm opyfil The The !!	all bl
Dienclose \$55 DCh at Phy ne	
_	
N m	
tal et	

Clinical Opportunities

Physicians and Surgeons are in vited to take advantage of the clinical facilities for which special arrangements have been made in several cities. Those interested will receive every attention upon application at the following clinical centers.

CHICAGO Clinical Bulleph 40 E Erie St

NEW YORK Society for the Advancement of Clinical Study 17 W 43rd 5t

PHILADELPHIA Academy of Surgery 15 S 22nd St

ST LOUIS MO St Louis Medical Society 3525 Pine St

ROCHESTER MINN International Surgeons Club Mayo Clinic

LONDON ENGLAND Fellowship of Medicine and Post-Graduate Medical Association I Winpole St. W. I

KANSAS CITY Kansas City Clinical Society 400 Righto Bldg

CLEVELAND Academy of Med cine 2318 Prospect Ave

BROOLLYN

Booklyn Joint Committee
on Gradu te Education
1313 Bedfo d Ave

Surgery of the Eye Aca (rd)

By TRVIN TOROK, M.D.

Sugo t the H ma h pp M mo al Eve H up tal Du eto of th Fy D partm at fB th lir i Hosp t I N w Yo k Cas te

GERALD HARRISON GROITS, M.D.

Sige t th H make pp M mon 1 E, H spri
Co hag Ophth im lest th Roo it H south New 1 Handsome Ociaco ASA Daves with

510 original illustrations ina in colors

Cloth \$6 so net

OTH as to text and ilius trations, the book has been entirely revised schematie drawings have been largely employed as they show

Method fus the spoul lend of th w important details to the best advantage. In most of these the site and size of the incision is colored to aid quick recognition Norto 23

In the chapter Operations on the Iris a complete description of Elliot's Science corneal rephining is given. The new intracansular extrac tions for entarget are described also a newer and better method of removal of the lacrymal sac Other new an important features include the Esser If heeler operation for the restora tion of the cul de sac-a more detailed description of the action of the extrinsic ocular muscles with the methods of the examination of their action previous to operative proeedures—the graduated plastic tenotomy and the tenotomy of the inferior oblique muscle

In this work you have a thoroughly practical guide to surgery of the eye the material is assembled so you can find instantly the information wanted on any given topic Great eare and judgment ha 1 which in the hands of the

the success of the operative

Before describing each g a not an which they r t id

OF HARIMPTRY

HUMAN ELE

E TREACHER COLLINS FRCS Royal Landon Op halm # 9 1 Ci th \$1 75 a t

BRAUN S LOCAL ANESTHESIA Tr lated by M L. HARRIS MD Ch | Pal lense II + sal w (6th) Ed Cl th f cont

LUTHER C PÉTER FACS L I Prene Greduste S had N w (d) Ed Cl h \$400 g Mashington Square

Philadelphia

Se dim book hecked w. IT k & Gro t \$6 50 Peter \$4.00 [Coll \$1 25 Braun #5 00 [15]

erile Catgut

TENIOR WIND HEAR





The k d Ston a h -Ja Scioco k

SURGERY, GYNECOLOGY AND OBSTETRICS

AN INTERNATIONAL MAGAZINE PUBLISHED MONTHLY

VOLUME AL

MARCH 1925

NUMBER 3

THE RED STOMACH

BY JAN SCHOEMAKER M D FACS THE HAGUE HOLLAND

VER1 surgeon has had the experience of performing a laparotomy for gastric or duodenal ulcer and finding neither the one nor the other present. The same

This redness has a very peculiar extension. To the cardiac side it ends sharply at the line which we are accustomed to draw in our minds as a line of demarcation between the body of the stomach and the antium pylon cum. The fundus and the body are never red they even form a deep contrast by their blu ish grey color. Sometimes the redness stops by the contrast by t

found this redness mentioned for the first time in a case record of November 5 1990. The stomach was normal except for a small adbesion but the serosa was hyperæmic Since that date I have repeatedly noticed this symptom

In the literature I could not find much about this phenomenon Von Hacker so far as I can trace first mentioned a flaming redness of the stomach. He assumed that this redness which always appears together with pen gastric adhesions is a symptom of inflamma ton and is caused by small erosions of the

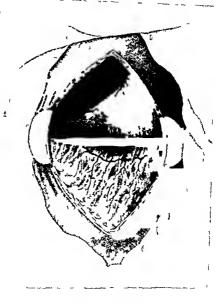
mucosa or a very small ulcer

I could not find much similanty with that which I had observed because the redness I saw was by no means flaming. For what do we see when we open the abdomen in a case of red stomach? As soon as the stomach and the surrounding organs come to view the pulone part shows a beautiful dark red color.

serosa of the duodenum but also in a cobweb thin membrane that is spread out over the duodenum Sometimes this membrane is

other evidences of ulcer are absent. There is never a swelling or callousness of the gastric lig

is the much and an operation is performed the stomach may show no scar nor can any examination however careful display the ulcer the presence of which was predicted. If however the stomach is closely inspected before it is handled the following conditions may be seen



Tie Red Storia i -Ja Schoe ik

I have now in co operation with my assistant Van Woerden tried to investigate the meaning of the red stomach For that purpose we shall discuss 45 cases In 17 of these cases I did a gastrectomy so that we could verify with what kind of process we had to do The microscopical examination determined that the mucosa submucosa and muscularis are always absolutely normal but that the serosa shows a very intense hyperarma both the greater vessels and the capillaries being wide and completely filled with blood Never was there found an infiltration of leucocytes or cedema o that we cannot speak of an inflam mation. In cases where swollen glands were found at the greater curvature these showed only a hypersemin but no inflammatory symptoms

At the utmost there was a desquamation of the endothelium caused by a catarrh of the sinus but no infiltration of leucocytes. As this hyperamia may be considered the result of a stimulus it is logical to try to find out where this stimulus originates. We can exclude the mucosa of the stomach as this was uniformly normal with no gastritis and no erosions Only once a small ulcer was found observation is of great importance for here with the theory of you Hacker fails. A connection between the red stomach and a gastric ulcer does not exist in my opinion. Also it is not very likely that the red stomach is a pre ceding phase of uleer because it would not be expected that the redness would disappear after the ulcer had begun And it appeared to us that in cases of duodenal or gastric ulcer a typical red stomach was seen only once

We determined the color of the stomach in all operations and we find in all our records

the second organ to which we devoted our attention was the appendix. We removed it in 3.1 0 000 00

this is not true. It is not easy to determine whether with chronic appendicutes we regularly find a red stomach The incision we ordinarily make for an appendectomy is so small that we cannot observe the stomach Still on the three occasions when I could see the stomach it was not red

The 2 last cases induced me to make the incision for appendectomy somewhat higher up than usual The first patient was a woman of 30 years of age who for half a year had had a light attack of appendicitis and after that still complained of stomach aches. The pain was localized under the left costal margin and in the epigastrium. These parts vere very painful to pressure but after close examina tion the McBurney point was the most prin ful of all I made the measion in the right rectus muscle on the level of the umbilicus so that I could inspect the transverse colon and the stomach There was no pericolitis no penduodentis and no red stomach but there was an appendix macroscopically in flamed at its end and the inflammation was confirmed by the microscopical investigation

The other case was that of a girl who not only complained of appendicitis but also of the well known pain in the stomach region Neither in this case did we find a red stomach Therefore the supposition which I once had that the localization of the pain in the epi gastrium in cases of chronic appendicitis depended on a hyperamua in this region has been proved erroncous

Also the results of an appendectomy in the case of a red stomach indicate that there is no connection between them The 6 patients upon whom I operated by taking out the appendix only all continued complaining of their stomach troubles Moreover I saw a patient with a red stomach whose appendix had been taken out four years previously

chronic cholecystitis Once it was filled with stones which were removed. In the 41 other cases we could not find proof that the gall bladder was the cause of the red stomach so

fe The microscopical examination showed a

The pylone part of the stomach is decidedly redder than natural there is a pylonic blush? That part of the stomach is soon observed to contract eagerly and vigorously sometimes the spasm is so severe and so prolonged that there may be a suspicion of a tumor but by degrees

greater curvature the glands are enlarged When these three conditions are seen the prophecy may be confidently made that the

has often been performed sometimes at is curious to note with hencift but as a rule with disastrou effects. It has been my lot to per form a secondary operation upon many such patients and to remove a badly diseased appendix or to resect a tuberculous intestine and perhaps to undo the anastomness which should never have been made. The stomach should never have been made.

irregular activities It speaks so loudly that its voice only is heard. Its tears of sympathy are spoken of as hyperchlorhydria. Movin han is convinced that the red stomach is a

sleocæcal angle by injecting the glands with a olution of indispocarmine. We know as a result of very careful experiments upon human bodies that the normal flow passes along the ideocelic artery in least of the third part of the duodenum racking the group of glands.

augle either to the stomach or to the duode num But Braithwaite came after prolonge i and scrupulous observation of living subjects to the following conclusions

Y Wost of the lymph undoubtedly passes deeply to join the lumbar group hut som i seen to pass upward over the head of the pan creas to enter that group of glands which he along the inner border of the duodenum

2 Some lymph undoubtedly passes through this group on to the duodenal wall itself and up to and occasionally beyond the pylorus

If for some reason or other there comes pour ng into the mesentenc group of clands a stream of indected lymph the results is bound to be a lymphangeits and lymphadenits. Assuming that the flow still goes on over a period of months or vents it in otto on much to presume

of this change would be obstruction in the path of the normal flow Cradually the whole mechanism is thrown out of gear and we have every thing present to give rule to absertant and tertograde lymph flow. Now the infected lymph fulling to make its usual exit seeks new ways of escape in all directions misses whol groups of glands which under ordnary conditions would check and fifter it ard etbs and flows to and fro until the glands around the superior mesenteric artery are reached and partly obstructed. Deprived of easy access

denal wate risely establis a many

is that the red stomach is an inflammatio

in 50 per cent of the cases and m the other half there was a normal acidity. Anacodity near was found. There was blood in the faces in 35 per cent of the cases, but none in the remaining, 75 per cent. To make these determinations we used benather reaction.

Roentgenoscopy shows a normal in accelerated or a slow pensialiss. Now and then every strong contractions were seen but only in the minority of the cases. Almost nothout exception the Viray plate showed a normal stomach without contractions or any other deviation. It was remarkable that after 6 hours in more than so per cent of the cases a

flattening as two patients are included in this number who hid a very small ulcer at the plone part. In 4 cases pains returned short by after the operation. Roughly speaking one might say that 50 per cent are cured by a resection. The results of gastro enterostomy were less flavorable yet 2 patients remained without any pain but 1 rinow of 4 whom this operation did not benefit. Hemisphuncterectomy was performed twice one with a good result the other with a negative. A sleve or in the contraction of the

with small retention and hyperacidity

STRUTTER

We have to deal with patients whose an amneses suggest a gastne or duodenal ulcer but whose symptoms show a caprinciousness in appearing and by influencing the nervous system are of great importance. The chemical craimination gives no results and a series of train plates show no seen of an ulcer.

Treatment In 1 cases I performed a pastro-entrostemy in 1, a gastrectory in 1, a gastrectory in 1 case the of tration of Finney in 7 cases an appendentery in 3 cases a hemi-phineterectory and in 2 cases I removed the gall bladder I retently examined again 36 of these patients of these 12 wen, operated upon a 6 the first method of Billroth and 8 of them were tatally freed of complaints. This number may be

5 cases In none of these did the patients get nd of their pains. Three are 2 patients who had their gall bladders taken out. Both gall bladders nere chronically inflamed and both patients are now without any complaints

Therefore what are we to do when we open the abdomen and find nothing but a red

any ahonomality we may close the abdomen or perform a gastrectomy. There are the good reasons for doing a gastrectomy. (1) The dang is in hight because the operation is much simpler than in case of an ulter or circinoma because ne have an entirely free atomach (1) The chances of heating are about 50 per cent in my 22 gastrectomics more than 8 pt cents were healed. Therefore I like to give my patient the 50 per cent chance when before hand a greatment based on a diagnosis of nervous disease has been carned out 53 stematically.

hat in the minority of the cases this organ was the primary cause. But the results of my operations indicate that it may be possible that a causal connection custs. Trom the 4 cases three are a cases that have been treated with cholecy electiony only and these a are still free from pain. But even five admit that in these two cases the cholecy sitts was the cause of the red atomach we are not so far that the problem of the enlogy of the symptoms is solved.

There remain 43 cases which we cannot classify. We are nearly forced to think that the primary cause may be found in the sympa

correct

stomach and in so doing observed a vivid hyperamia extending over the pylone part Another explanation is that the red stomach is a part of the Periviscente du carrefour

an explanation of the symptom. Moreover there are red stomachs associated with pen

t of the

ulcers. In the first place we find pain 1 me moments of suffering are with some patients regularly one hour and a half after dinner some patients complain of pain especially during the night wherea they do not suffer much in the daytime. Sometimes the pain 1 felt immediately after a meal and another patient cannot strict an connection between

```
BNA add mill ?
Jenty J
```

the pain and the meal Some for several days in succession have the sensation of a painful belt being drawn around them The pain is at most times localized in the engastnum and has no tendency to irradiate I seldom was under the impression that the pain was very vivid The application of moist heat and the drinking of hot milk sometimes relieves the pain but rest is most effective Period of latency of pain appear just as in cases of ulcer but in all cases nervousness is an important feature on the return or increase of the complaints Vonuting does not occur very often but there is usually a sensation of nausca and a tendency to vomit. One patient ejected large quantities of food just as if he had a pylon stenosis and another patient even passed throu h a hamatemesis

Sour risings are Iriquently menhaned. A few times I was informed that indigestible food especially cabbagi beins etc wear hard to stand but many a time I was told that all kinds of food could be eaten without giving

rise to any complaints

The appetite was seldom disturbed except
in the periods of prin when the patients are
afraid to eat for fear of increasing the pairs

The general condition of the patient was as a rule rather good. There is no limit as to a.e. Mi youngest patient was 16 years old the oldest 59 and most of them were between 25 and 35 years.

A preference in seres probably does not exist as in 4, ca es 25 nere females and o

In 4 Ca C McBurney's point was especially sensitive. The chemical analysis of the stomach contents after the test meal gave the following reality. The hydrochloric acidity moves between 4 and to in an equal number.

ind en 170 vest

archity was 4 and lactic acid was found Therefore we cannot speak of an intense hyper-cidity Hyperchlorhydria was found surgeon that if the bloody fluid sucked up by this method of sponging should be col lected in a sterile receptacle it might after proper treatment be put back into the pa tient's blood stream should his condition at any time in the course of the op ration or at its conclusion appear to indicate the need of an increase in blood volume. This led to an examination of the fluids on one or two occa sions and they were found to contain a sur prisingly high count of normal appearing erythrocytes

The advantages of such a procedure should it prove to be a feasible one were obvious In many neurosurgical clinics where post operative transfusion is a common practice a donor in the person of a treviously grouped student house officer or relative is made ready for each operation of any magnitude Here at the Brigham Hospital however transfusions have been infrequently performed and as the years have gone on have been less common than more so but there are undemably times when an immediate blood transfusion may be life saving and some provision must be made to meet these possible demands. However even should a properly grouped donor be always on band and ready for use at these critical moments unf follow ŧ ible to

r these circumstances it would be a much more simple and reliable safeguard against the posuble emergency

The idea of course is not new The blood in the peritoneal cavity in cases of ruptured ectopic pregnancy has been successfully rein troduced into the ersangumated patient's blood stream But so far as we know there has been no attempt heretofore to replace blood lost during an operation. The proce dure has proved so simple of execution and in a few cases such a boon that we propose to given't for the

dunn enls

soaken cutton pledgets u ed for sponging or temporary packing during the progress of the operation were collected and wrung out and

the fluid thus secured added to that already obtained

In one or two of the early attempts at blood replacement an initial depressor response was observed rather than an immediate rise in blood pressure after the infusion had been started Some mi givings naturally arose as to the length of time blood obtained in this way might stand expo ed without change even though from time to time a small amount of citrate solution was taken up through the suction apparatus Moreover the well known depressor effect of the rerebral tissue juices was not to be overlooked. The matter conse quently was taken to the laboratory by one of us (Davis) in an effort to determine whether such untoward responses might occur with the replacement of blood correspondingly treated under the conditions of a controlled experiment

LABORATORY OBSERVATIONS

Ten experimental animals (cats and dog under ether anæsthesia) were used in the study Blood pressure tracings were recorded from the carotid and the femoral vein was prepared to receive the fluids to be replaced In one series of animals major procedures de signed to produce operative shock i ere first performed and the animal was subsequently bled from the femoral artery an amount sufficient to produce a fall in pressure to a critical level To this blood plus that gath red during the operation which was di luted with normal saline solution there was added an amount of 2 per cent sodium citrate solution sufficient to bring the final percentage of citrate solution well over a per cent of the remiused fluid. In no instance was an initial fall in blood pressure produced unless the fluid was introduced with too great rapidity The final results invariably showed an elevation of the blood pressure to or above the pre operative level where the pressure remained for as long as a hours the maximum time of observation

To subject the procedure to a more rigorous test another cries of animals was operated upon and a portion of cerebrum and muscle removed. This tissue vas ground in a mortar with sterile sand and extracted with normal

EXPERIENCES WITH BLOOD REPLACEMENT DURING OR AFTER MAJOR INTRACRANIAL OPERATIONS!

BY LOYAL E DAVIS M D CHICAGO Frem by F llow fith N tional Research Council

HARVEY CUSHING MD FACS ROSTON

HE method to be described whereby the blood lost during an operation may be collected and subsequently replaced is the outcome of certain minor principles in the technique of craniocerebral operations

of a suction apparatus as an adjunct to the usual outlay of instruments

other intrabuccal procedures with a mouth gag in position and the patient on his back secretions which gravitate into the pharynx can be removed in this way with much greater celerity than by the use of swabs even chance comitus can be quickly and afely sucked out through the tube without changing the post

tion of the patient's head The principle moreover has been utilized in other ways Thus during the war one of us made use of suction to remove the debris of disorganized brain bone fragments and so on from the track of the mis ile in penetrating wounds of the head—a procedure which would have been much more effective had a water pump been available under the conditions in which these operations were undertaken Then too Dr Chifford B Walker formerly of this clinic has devised a suction kmie or dissector which he employs in tonsillectomies so that all blood which escapes in the process of separation of the tonsil is actually drawn down the body of the knule obscuration of

the field being thereby so far precluded that sponging during the process of enucleation is unnecessary So the principle is one with widening applicability

Surgeons will readily see the many further uses to which this imple home made adjunct to their operative armamentarium may be for emptying cy ts or broken down hæmatomata for the cleansing of infected cavities or for the sucking out of certain diffluent tumors which can be removed in this may much more readily and completely than when spooned or wiped away

It is however of operations on the cen tral nervous system that we chiefly wish to speak and the apparatus has been found particularly useful as a means of removing cerebrospinal and other fluids from the depths of wounds. Heretofore, such fluid collections have usually been sponged out a procedure which often requires time and not infrequent ly traumatizes the delicate tissues even when cotton wool is used for the purpose. But the field can be much more easily dired by suction For example if a cotton wool pledget is in serted in the region of one of the large arach noid cisternæ and the sucker is applied to who mad madeful

wise if used profusely o saturate the drap ings as to make a sodden and untidy operative environment

From these early usages the suction appar atus has come to be employed by many ass stants for sponging in preference to the more commonly employed absorbent substances such as gauze or cotton wool and from this routine use in sponging the meth od of blood reinfusion or replacement to be described was a natural step. It was fir t suggested by Dr Emile Holman the resident Laboratory f Ercal Research f th Harva d Med al School, P geo N w Y k Oc her ors 9 4.

fit P t B B hern H p 1 d h sented befor the Chancel Co gress tS F righ Surg 1Cl

surgeon that if the bloody fluid sucked up by this method of sponging should be collected in a sterile receptacle it might after proper treatment be put back into the patients blood stream should his condition at any time in the course of the operation or at its conclusion appear to indicate the need of an increase in blood volume. This led to an examination of the fluids on one or two occisions and they were found to contain a surprisingly high count of normal appearing erythrocytes.

it In

operative transfusion is a common practice a donor in the person of a previously grouped student house officer or relative is made ready for each operation of any magnitude Here at the Brigham Hospital however transfusions have been infrequently performed and as the years have gone on have been less common than more so but there are undemably times when an immediate blood transfusion may be life saying and some provi ion must be made to meet these possible demand. However even should a properly grouped donor be always on hand and ready for use at the e critical moment unfavorable reactions not uncommonly follow the blood transference Were it possible to repla c the patient's own blood under these circumstances it would be a much more simple and reliable safeguard against the possible emergency

The idea of course is not new The blood in the pentoneal cavity in cases of implured ectopic pregnancy has been successfully rein troduced into the exsangumated patients ablood stream. But so far as we know there has been no attempt heretofore to replace blood lost during an operation. The procedure has proved o simple of execution and

only was the blood which had been gathered into the receptacle reinfused but the blood soaked cotton pledgets used for sponging or temporary packing during the progress of the operation were collected and wring out and

the fluid thus secured added to that already obtained

In one or two of the early attempts at blood replacement an initial depressor response was observed rather than an immediate rise in blood pressure after the infusion had been started Some misgivings naturally arose as to the length of time blood obtained in this way mucht stand exposed without change even though from time to time a small amount of citrate solution wa taken up through the suction apparatus Moreover the well known depressor effect of the cerebral tissue juices was not to be overlooked. The matter conse mently was taken to the laboratory by one of us (Davis) in an effort to determine whether such untoward responses might occur with the replacement of blood correspondingly treated under the conditions of a controlled experiment

LABORATORY OBSERVATIONS

Ten experimental animals (cats and dogs under ether anæsthesia) were used in the study Blood pressure tracings were recorded from the carotid and the femoral vein was prepared to receive the fluids to be replaced In one series of animals major procedures de signed to produce operative shock were first performed and the animal was subsequently bled from the femoral artery an amount sufficient to produce a fall in pressure to a critical level. To this blood plus that gathered during the operation which was di luted with normal saline solution, there was added an amount of 2 per cent sodium citrate solution sufficient to bring the final percentage of citrate olution well over a per tent of the reinfused fluid. In no instance was an initial fall in blood pressure produced unless the fluid was introduced with too great rapidity The final results invariably showed an eleva tion of the blood pressure to or above the pre operative level where the pressure remained for as long as 4 hours the maximum time of observation

Fo subject the procedure to a more rigorou test another series of animals was operated upon and a portion of cerebrum and muscle remoted. This tissue was ground in a mortar with sterile sand and extracted with normal

salme solution at body temperature. The extract was then added to extracted blood obtained by an arterial harmorrbage and infused slowly. Under these conditions also the result was an elevation in blood pressure without primary fall and an improvement in the animal s general condition. Carrying this test still further such extracts were allowed to remain at body temperature for 24 hours before they were reinfused. Even under these circumstances provided the fluid was given slowly no initial lowering of blood pressure occurred.

A fourth sense of experiments was carried out in which the issues were ground in a mortar and extracted in normal salme sold tion. This material was then filtered and boiled with a few drops of acetic acid. The infusion of this fluid caused a prompt lowering of the blood pressure. Similar observations upon different extracts of various body its sues have been recorded by Vincent and Sheen. It is obvious however that such expenients as these last far exceed the conditions ments as these last far exceed the conditions.

tion of the procedure in the clinic with a standardized and carefully enforced technique

TECHNIQUE

sufficiently long to be easily handled by an assistant. A sterile glass tube of any desired size or angulation fitted into the end of this section of tubing completes the apparetus The flask is kept in a water both at about the temperature of the body Clotting in the collecting tube as well as in the flask is prevented by sucking up from time to time a few cubic centimeters of 2 per cent sodium and the collecting tube.

Effect filtra-uscul inj too f t f mal the es

citrate solution. It I evident that the combined fluids obtained in this way will vary greatly in their percentage of red blood corpuseles in accordance with the nature of the operation and of the lesson encountered. It will vary too with the skill and diagence of the assistant in his effort to obtain a rich fluid.

If the patient's condition makes the re placement of blood desirable the fluid is

made by the usual gravity method after the introduction of a needle into a vein at the elbow or ankle or by direct exposure of the vessel and the introduction of a cannula Upon several occasions knowing that the

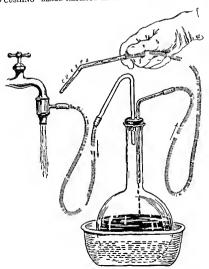
has been introduced into the vein before the intracramal operation was started. The lumen of the cannula was of course paraffin ized and closed by an obturator until the time for its use prose.

During all intracranial operations at this

tension. These observations should be as continuous and should as a dosely resemble the Lymographic records of the laboratory as is possible. In such a manner an acturate check may be kept upon the condition of the patient during the operation and reliable in formation may be riven to the surgeon Similarly any effect produced by the blood reinflusion may be instantly noted. In the condition of the continuous may be instantly noted. In the condition of the condi

CLINICAL OBSERVATIONS

As stated the suction apparatus has not only come to be used for convenence in sponging mall intracranual operations but during the past 12 months the collected fluid



Fg T show the mple h me mad rr gement i the set n pp atus

has been introduced into the patients is blood stream on numerous occasions. In a few cases a transfusion was urgently needed in two or three other the fluid were merity replaced as a control. The majority of the patients doubtless would have recovered though perhaps less rapidly without blood replacement. Brief abstracts of these cases with a few examples of the complete unasthesia charts will be given. Because of the great vasculantly of the tissues which accompany large meningomata. Many of these blood replacements as will be seen were made.

during or after the removal of tumors of this particular kind The first observation was made on August 31 1923 as shown in the following note:

CASE 1 Surg \0 19308 Tiree stage remotal of a large occ pital meningtoma Blood replacement after two of the sessions

August 21 19 3 Adm ssion of a man aged 42 with evidences of a large tumor in the left hemisphere producing marked pressure symptoms. A more definite localization was not possible

Stage r tugust 25 Under ether a median osteo plastic exploration was made and a resistant growth detected by exploratory puncture deep in the pos



Chart r Case a To illustr to an unia o ble respo e afte replacement of collected fluids containing deg nerated tiss e débri after radiation

terior part of the h mushere beyond the exposed feld Much blood was lost during the exploration. The blood pressure during its course fell from 120-80 to a level below 50 too low for accurate registration. These for pressures persisted for 2 hours during which there was considerable annity a vein

3 392 000 after 5 hours 3 676 000 on Septembe 9 2 792 000 on September 10 2 600 000 on September 11 2 536 000 on September 12 2 664 000 on September 17 3,480 000

This then for a first test was a fairly satis factory one for at least it showed that he bloody fluid in spite of standing for 2 or 3 hours would give an immediate and sustained pressor response without causing so far as could be told any unfavorable reaction. The secondary fall in the number of erythrogites which was observed to take place after both of these procedures in the course of a few days appears to be a common occurrence after any transfusion but by the time this occurs the emergency which concerns blood volume rather than concentration is over

Meanwhile, tests had been made on two other patients. In Case. (Surg No. 19543) on September 4 after a prolonged cerebellar

lected fluid showed a count of 736 000 with a hæmoglobin of 13 per cent and 500 cub cents the fluid collected in the flash with no un favorable reaction. In the next case for the first time the fluids were introduced during the course of the operation.

Case 3 Su g No 9254 1 tran f ttal econdary

the process
If er blood pressure at the outset was 210-80 but

befor the enucleation had been completed it had fallen below the level at which it could be accur ately recorded and the pulse rate had risen to about 150 Consequently during the latter part of the

response with a rise in pressure to 100-75 which was well sustained also a fall in pulse rate. The patients red cells just before the transfusion were counted at 3 840 000 at the conclusion of the transfusion 4 730 000 and 4 hours later 4 592 000 There was no unfavorable reaction of any kind

In this case therefore though the trans fusion was perhaps not urgently indicated the expensers showed that even in the course of an operation the blood saturated flunds might be re introduced with a much more sustained effect than would be expected from an ufusion of sait ollution alone. In the following case occurred our first unlavorable response.

July 6 to 3 Admission of Ernest & aged 45 with focal epilepsy suggesting a tumor of the right Josterior hemisphere without tension On August 1 und r ether an osteoplastic exploration revealed a large diffuse gloma which was not remo ed. The sound was los d and he sas given a immed ate deep Roentgenization. This was followed in a lea hours by a com; I to left a ded hemiplegia. Thinking that there must have been some postoperative n u d complic tion the bone flap was reflected d solo ing merely an extr mely tense brain Th bone flap was sacrificed and the scalp alone replaced The patient subsequently did bidly acquired a marked potrus on 1th chol d d scs and in d peration it was d termin d to make a block re sect on of his lesio

is go 3 S plember 7 Under local anaesthesia the flap wa as n reflect d and a huge ball of compl t is d g nersted gloma was r siv h is 2

placement of the collected blood would be advan

Though the patient experienced some nausea and

curred so that the procedure was abandoned It interfered in no way with a normal and unevential recovery

This expenence was a most disconcerting one At this time no laboratory observations had been made. It was thought either that the fluid had been introduced too rapidly in an individual whose blood volume was quite sufficient or else that the tissue juices from the disorganized tumor and partially organ used blood clots resulting from the previous operations which had been taken up in the cotton pledgets and wrung out into the collected fluid was the cause of the unfavor able response. The experience at least made us pause in subsequently utilizing fluids con taining an excess of white cells taken from wounds which had been radiated and in which there was any di organized tissue

CASE 5 Surg No 19535 Osteoplastic resection with resification of gliomalous cyst Ventric lograms etc. with subseques t blood replacement

On September 12 19 3 an osteoplastic explor ation was performed for tumor of the right hemi sphere and a large gliomation cyst deer in the hemisphere was tapped. Air was replaced in the showed red blood cells 4 100 000 The collected At fluids showed red blood cells 2 016 000 harmo

At the time a partial removal of bone over the oc

The only point of interest in this case lay in the fact that the fluid had been standing for 3 hours some of it indeed was at least 5 hours old and there were no deleterious effects thereform

The next experience (Case 6) was on a young man who had a omewhat prolonged operation for ecrobelar tumor and at the end of 4 hours his pressure had dropped from 100-90 to 80-57 with a 1se in pulse from 100 to 180. However his condition was very good and under ordinary circumstances he would not have been transfused. Nevertheless a

to 3 284 000 5 days later Stage 8 November 14. At this session it was

entered the vein when there was an immediate and alarming fall in the pressure which however came back promptly to its former level. No further fluid was introduced. In siew of the experience with Case 4 and this second unfavorable rection it was thought that the method might have definite draw backs. It was at this juncture that the laboratory observations were made which

Stage 9 December 2 The slap was re elevated and a considerable port on of the tumor was re moved Bleeding nas checked only by implication of muscle. At the outset of this session her pressures

left the patient in critical condition. It was possible at the various ses ions to make some comparison between the effects of different methods of volume replacement in the blood tream.

CASE Surb No 1987: Partial remort of as a cipital pe ithelioma with profuse bled g and

late as low as 1 900 000 LU LS LEIL slow and gradual recovery

sequent ses in even to get down to tre tumor because of the excessive ascul rity of the over

These comparative observations hardly justify the drawing of any definite conclusion but it would appear at least that the secondary snarms which follows a marked loss of blood is no more likely to be checked by whole blood transfusion than by the re placement method under discussion. This property is a matter which concerns us less

than the emergency restitution of blood

The next observation (Case 8 Surg No 1994) January 11 1924) was merely a con rol undertaken to determine whether any blood changes could be detected. None were apparent after the introduction of a large amount of collected fluid having a red blood cell count of 2 400 000 and harmoglobin of 35 per cent. There was no immediate reaction or observable change one way or arother in the patient's condition on subsequent blood studies. In the succeeding case the procedure had a favorable effect.

CASE 9 Surg No 20232 Ottoplastic exploration with extirpation of metastatic surcoma and blood replacement

were sustained. There was no union and reaction of any kind

The following represents the type of case in which there was actual urgency in restoring ufficient blood volume

CASE to Surg No 20203 Transfrontal removal of large meningioma arising f om the alfactory groote Blood replacement during and after operation

December 18 19 3 Removal under ether in a

During this entire time the anæsthetic had I een discortin ed

The enucleation was finally completed and at the close of the operation an additional 500 cubic centimeters of bloody fluid which had meanwhile

pressures were sustained. There was no unfa orable reaction

Here then was an experience of an encouraging kind which demonstrated even more strikingly than in Case 3 the possibility of utilizing the method during the course of an operation to tide the patient along and to permit of continued manipulations which might otherwise have seemed foolbritch.

Another test made on January 4 1924 (Case 11 Surg No 0,05) was again merely in the nature of a control An osteoplastic exploration with the disclosure and partial removal of a gloma was made the patient's condition remuning unaltered throughout The refusion of 200 cubic centimeters of the fluid with a red blood cell count of 1 850 000 and hamioglobin of 0 per cent caused ho disturbance and left the pressures unaffected

In the next observation another test case there occurred for the third time a slight preliminary fall in pressure immediately on the first introduction of the fluid

Case 12 Surg No 20467 Oste plastic exposure of a large frontal glioma which was remo ed en bloc

Before the operation the pressures were only op-60 with a pulse of 90 and at the end of the thard bour before the adherent tumor could be safely disfodged the pressures had fallen off to a level where they could not be recorded and tough the pulse had not risen abo c 130 it was irregular and difficult to count

It was an open question whether the wound

In the following case the procedure was in all probability a life saving one

CASE 13 Surg to 20,04 Osteoplastic exposu e of excessively v scula and aneu simal pe ill clioma Blood replacement (cf. Chart 2)





Chart 2 Case 13 T show flect of blood repl cem nt d ring the rs of an operat n in whi h th had be an abrupt and exces 1 e ly loss of bl od

January 17, 19, 4. Left entenplasue exploration in a man of 6 µ for presumed meaningma shown on the N ray plates. Inheritation to bloody, from the outset. The tree as a ray man of the control of the co

CASE 14 Surg \0 20632 O le platic i a s
frontal procedure with i anseo i al p eceme I remoral
of la g olfactory groove men ngsoma Impl niai n
of muscle from patient s leg Blood repla ement d r g

operation
February 14 19 4 The patt at was a man of 9

being checked by pla ement of muscl from patient's leg

The pressur s at the outset er 20-0 with a

The next experience was with a prolonged and difficult tumor extripation. The pressures had held out well until the fourth hour when owing to a brisk momentary bleeding they fell off markedly. Here again the prompt blood replacement was probably a hie saving measure.

The next observation was made on a patient in whom two stages were needed to complete the operation in spite of trans

CASE 15 Surg No 20727 Partial removal in two stares of large frontal bilateral meningsoma with ex

Case 16 Surg No 20975 Exterpation in one session of right sylvian meningioma with blood re

of As ele

tic trolled by muscle procured from another case. The tumor lay directly in the sylvian fissure and vas unusually nodular and difficult to dislodge vithout

undue dámage.

At the outset the pressures a cre 140-80 with a pulse of 80. On the conclusion of the operation at the beginning of the fourth hour pressures had slowly and gradually dropped to below o with a pulse of 140 and on removal of the anesthetic as is not infrequently the case they fell off still more

The pressures t t e outset were 130-60 t nh a

provement in pressure to 105-50 during the n xt 30 minutes while the wound was being closed. There were no unfavorable reactions and these pressures were sustained.

The foregoing cases represent what may be considered our initial experiences during the first 6 months when the procedure was largely on trial. It is hardly neces ary to make any special comment upon the other cases in which the replacement has been practiced during the rest of the year. Only in opera tions for the removal of the more difficult meningiomata has there been any imperative need for increa e in blood volume and the brief report of four more of these operations in which one or both of the authors parties pated may deserve reporting though the story is similar in each instance. In all but one case it ha been possible to complete the procedure in one operation without the customary postponement to a second stage

b i m 14 to so No unlowerd reaction such as comiting or chill occurred

In the following case in spite of the support given by the transiusion two stages were necessary and in the last of them the blood replacement was possibly his saving

Case 17 Surg No 20135 Removal of an occiptial meningioma in two stages with blood replace mental each certical

Stage: 49:18:20 g. Exposure in a frail woman of 30 of a large right local tills meaningsman rising from the fateral sinus. Its assumption was made clear by the \ \ax xs. Because of the diplocitic valualizing blecking was excess e from the outset and after elevating the flap occurs from the duts and the resultance of exposed twint rould be controlled only

by placement of muscle taken from the patient sleg At the outset before beginning anæsthesia the pressures were 100-60 with a pulse of 90 and rose

-m u Loui just before the final enucleation was

320

completed, they had fallen to et ce 55-40 with a Before the closure her pressures had dropped pulse of Ico Synh da off too low for registration After blood re placement they promptly unproved to a level of 120-80 but in the course of a few hours she succumbed evidently to a respiratory failure

w en tasted a full 4 hours until closure was com pleted

By this time the pressures had fallen off again to vell b low 50 when she was given a further injection snow a completed blood pressure chart

comparatively easy though the procedure was some

CASE 21 Sug No a

Th / 11 -- -

pulse of 148

From this she made an excellent recovery On toril 23 her red blood cell count was 3 to4 000 hamoglobin 6a per cent On April 30 red blood cell count 3 684 000, hamoglobin 60 per cent On May 11 (the day of her d scharge) red blood cell count 1 840 000 hamoglobin 20 per cent

In the last of the series of cases which the

CASE 18 Surg No 21046 Ostcoplastic extirpa

ters that one or the distour point. The collected fluids showed a red blood cell count of 3 500 000 22 * e l wl ntroduced

pressures of the succeeding 4 days In this case the knowledge that a depend

pulse of 80 The operation was complete in a hours time and when ether was removed the pressures were 75-60 with a pulse of 110 However on remov el amed if till mor and

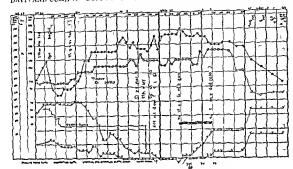
> wise have been more safely postponed for a second stage

> > GENERAL COMMENT

At the outset it was a source of surprise to

During the summer months the method was put to use by others in the clinic on two occasions (Cases 19 and 20) with one fatality the only one in the series This was a young woman with an advanced tumor syndrome 1 a on who succumbed

portant than the number of red cells them selves The richness of the collected fluids in their content of blood naturally depends on several factors on the type of operation on the vascularity of the tissues on the amount



. Chi to Care 1 T showth effect f blood r plac mint fit vig a plinged petinf the reminding min ham

of saline solution used for irrigation and on the industry of the assistant. The number of cry faroes tes has salted from 500 000 to as high as 3 500 000 per cubic millimeter in the last reported cast. The superiority of such an infusion fluid over the ordinary saline solutions: obvious Following its introduction into the blood stream in every case a will sustained rise, in pressure has ensued whereas the pressure effects of Ringer's solution as i well known are terristors.

While the u e of the apparatus as a means of ponging is not to be slighted the

thood as possible \(^1\) micro copic examination of the red cells in the collected fluids have hown them to be normal so lar as their physical appearance got \(^1\). And \(^1\) Permo globin content is an indication of this orygen carrying properties. The amount of citrate solution which is present is certainly far below a toxic dose and probably does not vary greatly from the prescribed two per cent commonly u cell in blood transfusions. Pas

sage of the collected fluids through many thuskness of sterile gauze is sufficient to filter out all of the small clots and foreign material which may have been sucked up into the flast. The only hazard in the procedure would appear to be the depre sor reaction which might come from the introduction into the blood stream of the junces of degenerated tissues. This it least is our explanation of the single unfavorable reaction (Case 4) observed on a test case carry in the service.

 about 10 per cent of our tumor series. How ever in only a small number of these special cases may the patient's condition urgently demand an increase in blood volume.

During the year there have been 22 meningomata operated upon only ten of them as recorded in the histories above having possibly shown the actual need of increased blood volume at one stage or another. There can be no question however but that the proportion of the a admittedly formulable operations which have required more than one stage for their completion has been considerably cut down by the judicaous use of this procedure. It of course is not the only means to this end. The patients are given a continuous rectal.

saline drip during these prolonged sessions and there are countiess minor safeguards of other sorts 'Nevertheless it is a source of comfort to a surgeon in the emergences which may arise from an undue lowering of pressures to know that there is ready at hand an infusion fluid which is fairly rich in the

troduction into the scene and juriner complications to a situation already sufficiently complicated in itself. Our experience in short has been sufficiently encouraging to justify our bringing this matter to the attention of others.

PENAL PAPILLOMATA AND BRETERAL IMPLANTS

THEIR SURGICAL TREATMENT IN THE FEMALE WITH REPORT OF A CASE

BY DOUGAL BISSELL MD FACS NEW YORK

1 object in reporting the cale of primary renal and secondary ure teral papillomata 1 not merely to add another case to the literature but to show fir t the important relationship between a primary renal pathology of this character and a ub equent similar development along the urmary tract and second to show that when there exi ts primary renal papillomata with no evidence of econdary lesion in the ureter there an e the questions Should nephrec tomy then alone be done and evidence of econdary involvement in the ureter awaited before preterectomy; performed? Should nephrectomy be done followed by the removal of the remaining portion of the ureter at the earliest po fole date' or should nephro-ure terectomy be done immediately? Likewise the question of preferred approach in finding and removing the prefer will be discu ed and a - - ---

ing portion may be removed without neces.i tating an excession of the bladder wall and with the least possible risk of pentoneal contammation from the bladder contents

HISTORY OF CASE

In an unmarried woman 31) cars of age seemingh in perfect health there occurred on February 1 1023 a sudden and profuse harmatuna which continued with lessenin seventy for several days. She

L so some growth in the read pel is the blood pet use did not ingrove on rest and diet it was one dered best to transfuse her before under taking so ratical an operation as suphrections. On March o 1923 good point centum ters of blood were than 1924 to 1

ureter within view was inspected no evidence of growth was noticed. The severed distal end wa tied with plane acigut cleansed with carbolic and and alcohol, and dropped into the wound. Healing as primiting the control of any tenth day. Then the parties of any tenth day. Then the parties of the parties of any tenth day. Then the parties of the second cleanse of the parties of the bots is child temperature and pain in the left leg and durin the following to day there occurred four distinct embodic attacks in different parts of the bods. After 3 or more months rest the partiest returned to her work, apparently in perfect.

portion of the ureter than was seen at the vesical onace therefore the removal of the remaining portion of the ureter was determined upon. On November 22 roug this was done

Operation A median longitudinal incision was made extending from the symphysis to the immediate region of the umbilicus. On opening the peritoneal cavity the corpus uters was found in first degree of retroversion, the adueta were normal. To maintain the corpus in an extreme anterior position in order to facilitate deep pelvic manipulation of the ureter catgut was pas ed in the form of a loop through the posterior urfaces of the corpus near its juncture with the cervix the free ends were carned out through the lower angle of the abdominal wound and there held taut by an assistant. The patient was now placed in the Trendelenburg posture and rubber envelope pad were u ed to keep the in testines out of the operative field

Freeing and removing the abdominal portion of the wreter. If the wreter cannot be located by 19th or touch as is done when it is tuber culou or when a palpable growth exits in it.

about 10 per cent of our tumor series How ever in only a small number of these special cases may the patient's condition urgently demand an increase in blood volume During the year there have been 22 menin

gomata operated upon only ten of them as recorded in the histones above having possibly shown the actual need of increased blood volume at one stage or another. There can be no question however but that the proportion of these admittedly formidable operations which have required more than one stage for their completion has been considerably cut down by the judicaous use of this procedure. It of cour e is not the only means to this end The patients are given a continuous rectal salme drip during these prolonged sessions and there are countless minor safeguards of other sorts. Nevertheless it is a source of comfort to a surgeon in the emergencies which may arise from an undue lowering of pressures to know that there is ready at hand an infusion fluid which is fairly rich in the more essential blood elements-a fluid which requires no grouping and which obviates the necessity of providing a donor whose in troduction into the scene adds further complications to a situation already sufficiently complicated in itself. Our experience in short has been sufficiently encouraging to justify our bringing this matter to the attention of others

325





Fig a Long tud n l cn of k dney and uppe u te. The pap llomat c m plet ly fills the kid y p l n and diste d th uppe ur ter

If the removal of the vesical portion is at tempted without adequate vision and space in which to manipulate danger of hamorrhage is encountered from the utenne plexus and of contamination from the vesical contents Therefore to afford better opportunity for surgical manipulation a window was cut through that portion of the broad ligament be tween the utenne plexus and the round hg ament parallel to and near the lateral border of the uterus. At the base of this opening the uterine artery was found tied and severed The freed portion of the ureter was pulled through the window in the broad ligament from behind forward. This manipulation facilitated creatly the freeing of the vesical nor tion of the ureter from its muscle hed which freeing was extended into the bladder wall as far as possil le

The peritoneal crivity was then temporarily thandoned and in order to facilitate manip

entire length of its anterior wall. A complete exposure and view of the interior of the blad der was thus obtained the bladder mucosa was then incised at a safe distance from the ureteral growth the normal tissue thus en circled was grasped with an Allis clamp in a manner to avoid injury to the growth that reimplantation of it might not occur. The remaining attached ve ical portion of the ureter was now freed and removed with the pelvic portion of the ureter- left in the pen toneal cavity-through the tunnel made in the bladder wall The tunnel opening in the bladder was closed with three or four interrupted plain cateut sutures No 1 and the anterior bladder wall incision closed with two layers of plain catgut sutures No 1 The pentoneal cavity was then re-entered the posterior tunnel opening was cloud with several interrupted catgut sutures also the

mugnt take price through the vesical tunnel

from its pubic attachment and entered through an incision extending almost the paping live to present to fith to make a major. It is to be seed to be a major to be a



1 r Malgn nt p pill mat of the Lid y pel n R tge gram ah g ilt d pel a d pperu i r then the surgeon must depend solely upon his

left ureter is the object of attack. When the right ureter is to be removed as in this case the peritoneum should first be grasped with

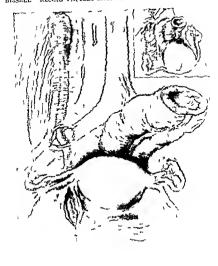
at a distance of a contimeter apart. Gentle traction is made upon them so as to elevate the peritoneum over the fascial sheath through which the ureter passes. The peritoneum a never attached to this fascial sheath unless.

thickening of its walls the problem then of finding it is not difficult Between the two Alls clumps the personeum now elevated in the form of a tent is cut with sussor at a right angle to the fold when this incusion i properly made there is a retropersoneal area exposed in the region of the ureter about 2

centimeters long not parallel but at a night angle to the direction of the ureter so that even though the forceps may not have grasped the pentoneum immediately over the ureter the ureter will be exposed through this cross incision when the forceps are released and the perstoneum assumes its position With this exposed portion of the ureter as a starting point the organ is freed and followed upward under the ascending colon by sense of touch to its termination Bleeding is insignificant for all vascular connections are severed at time of nephrectomy As the pelvic portion of the right ureter is easily accessible the freeing of it is rendered comparatively easy Hæmorrhage is here practically nil as there are no vessels of importance met with until we reach the immediate region of the bladder when a branch from the utenne artery which constitutes the lower source of the ureteral blood supply is encountered and automati cally cared for when the uterine artery i ligated and severed as was done in this case If the utenne artery is not evered and its severance is not necessary though it facili tates the freeing and removal of the vesical portion of the ureter this arterial branch i individually tied

Freung the resical portion of the writer in port through the obdominot on the The lumbar and pelvice portions of the ureter now being freed the problem before us was to remove the vescal portion with the least possible in jury to or sacrifice of the musculature of the but the control of the problem.

was to free the vesical portion from its muscle bed as far into the bladder wall as possible then to separate the anterior vesical wall from its pube attachment enter the bladder by a longitudinal inosion through, its anterior wall verse the growth at the ureteral outlet by a circular incision of the bladder mucosa etied, it is set to be soon the bladder mucosa etied, beyond the limits of the growth and follow the ureter downward dissecting it from its muscle bed until that portion was met with which had been freed through the abdomnal approach and finally to remove the ureter through the tunnel made in the bladder wall



When the left wreter is to be removed the personeum immediately above the pelvic brim and in close proximity to the inner bor der of the descending colon is grisped with two Mis clamps in the manner previously

proximity and the ureter is sought outwardly or immediately under the colon. The ureter

is then freed and followed upward to its termination. As the left ureter passes down under the signor of thesis encountered in siderable amount of tissue encountered in naruly. This tissue should not be severed because, it contains several important blood vessels. The ureter livre must therefore be freed by sense of touch and brought out through an mention of the pertioneum at a loner point in the perhis This same technique.



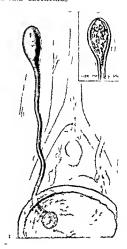
1d)

the right rectus was then anchored to its original site the space of Retzius drained with rubber tissue and the abdomen closed a Sums block in catheter was uperfed into the

an infected wound made a sati factors recov

The plan adopted in this case has certain objectionable features which may be easily

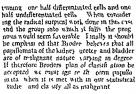




. .

obviated—first the removal of the vescal and pelvic portions of the ureter through the ve i at tunnel exposes the peritoneum to possible contamination. To vood this the vescal portion of the ureter after being freed from behad should be tued and severed and the posterior tunnel opening closed second the re-entering of the abdominal carty, after working within the bladder allo exposes the peritoneum to contamination. To avoid this danger the intra abdominal work should be completed and the peritoneal carty to edbefore the vessal work is begun





IMPLANTS

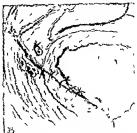
In the case here reported it will be rememhered that the pallomata found in the ureter 8 month aft r nighteetony was size of in the externe upper and loner portion of the r maining ureter. The extent of growth at the upper was very much greater however than the lower portion and it is probable that the upper and larger growth was the result for the control of the control of the control of the formation of the control of the control of the formation of the control of the control of the formation of the control of the control of the formation of the control of the control of the formation of the control of the control of the control of the formation of the control of the control of the control of the formation of the control of the control of the control of the control of the formation of the control of the control of the control of the formation of the control of the control of the control of the control of the formation of the control


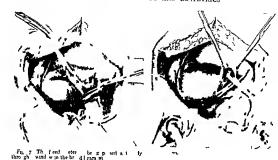
Fig. o 1 with materianing with h house the pertineal a divinciolouse of the canaliforn which the unater was sem ved.

plant at 1, true could have occurred at the same time or before but being much smaller when discovered the probability is that it originated from broken off particles of the upper papillomata which floated down the down-transport of united blood with which the uniter was filled at the time ureterectomy was completed.

If the theory is correct that implinitation is encouraged in a ureter apparently normal by manipulation of the kiliney and the hga tion of the arter when nephrectomy is performed for rend papillomata then it would seem rational for this reason if not for the rea on that thicro copic implants may exist in the ureter at the time of operation that not only the kidney but the entire ureter be removed that if the entire ureter be not removed with the kidney at primary operation then the operator should not wait for evidence of recurrence in the remaining ureter but remove it entirely and as soon after the primary operation as the I stight's condition will ner mi

URETERFCTOMY

When Henry Morris published in 1901 his Surgect Diseases of the hidney and Ureler uretractions was of quite recent date and he defined the term as partial or complete



is then followed in removing the vesical por

DIAGNOSIS OF RENAL PAPILLOMATA

It is not always possible in fact it is usually most difficult to diagnose rend papiliomata in incipience. Pain 1 a late and not a constant symptom and 1 usually dependent upon prising of clots crowding of the kidney pelvis or of hydronephrosis the re ult of ureteral implantations obstructing the urine flow I Earna turn as as a rule the first suggestive and recognized vamptom but as hematurn may be a manifestation of other pathology in the uri

occurs the unne stoung or nequenty acarefully examined for particles of populomata which are from time to time thrown off in the unne stream. If the bladder and ureteral onfices prove to be negative by cystoscopic examination then the pissing of a ureteral catheter will determine the side from which the hematuria occurs. The passing of a catheter may also serve to disologic particles of the provided of the pissing
nte de la tente de la tente de

the new growth Tyclography alone cannot be depended upon It usually furnishes and fincent data however with the knowledge ac quired from the history of the case cystos copy ureteral catheterization etc to base a surretal opinion upon

PATHOLOGY

The profession 1 rapidly accepting the method determining the degree of mah, nancy of neoplasms first suggested by Broders in 1919. These lesions he divides from the standpoint of cellular activity into a groups. The groupin, as based upon the principle that the more the neoplastic cell tend to different.

attained

Dr Broders kindly examined and classified the case here reported as belonging to the second group which group he defines as con the ureter were demonstrated in the application of this technique by Kelly, Bovee and Garceau already noted. To these objections may be added another re that when there occur papillomata protruding well into the bladder or involving its mucosa, the limits of the growth are most difficult to determine through the vagnal approach and is a surgical molvement of them is to be avoided this form of approach constitutes in objec-

Not satisfied with this combination of routes in removing the kidnes and the uniter Kelly in 1901 employed both retroperstonent and tran peritoneal routes in the first in stance unsuccessfully in the second success fully After freeing the kidney and upper prefer the kidnes was forced down into the nelvic region, the abdomen was then opened in the median line the pelvic portion of the ureter freed the round and broad hgaments cut down to the bladder at a right angle to their general direction the uterine artery tied and severed and a resection made of that area of the bladder wall containing the ter minal portion of the prefer the kidney and entire ureter with a nortion of the bladder wall were then removed through the abdom inal opening

The third nephro ureterectomy technique was employed by Lower. This operation was done in two stages. Lower approached the kidnes and upper portions of the ureter retro personeally and a months after removed the remaining nortion of the "part of the bladder wall retrorentone. By by extending the mission from the lower end of the old wound through which the kidney had been

The fourth technique for the removal of the kidney and the prefer complete is that presented by the author in this article

The first three method present certain difficulties and objection which interfere with the execution of the work and by respecting the bladder from behind introduce elements of danger with respect to both infection and rumplantation of the new growth. The fourth is direct and eliminities all dangers excepting that encountered when operatine intra addominally for any form of pubblogy.

THE TRANSPERITOVEAL OR INTRA-

Attention was called by me in 1903 to the advantages of the intra abdominal route in ureteral surgery in an article describing, a case of ureterovesical grafting. In this article I stated that the transperitoneal or intra abdominates of the state of th

the best advantage to grafting and allows a selection of the most desirable point on the littleder wall for implantation in fact it gives him the opportunity to execute his work with a clearness and precision afforded by no other route.

In 1008 I agun called the attention of the profe sion to the advantages of the trans peritoneal or intra abdominal route in an article advocating the removal of calculi from the pelvic portions of the ureter intra abdom inally in the following paragraph Gynecolog ual work of today is chiefly intra ab lom and The knowledge of pelvic pathology familiar ity with relyic anatoms, and perfected tech nique makes the avnecoli mst especially fitted for intra abdominal preteral surgery So well able is he now to protect the peritoneum that he should no longer hesitate to operate on the ureter within the abdominal cavity if he so doing he can insure an exactness not other wise obtainable. Much of the work on the pelvic portion of the ureter has been done upon the lemale and our knowledge of ureteral anastomosing has been derived chiefly from the source. The results obtained have been most encouraging yet we eldom designedly explore the ureter or remove intra abdomi nally foreign bodies from it

Again in 1915 I published an article on the

VIL and number portions of the affected ureter My convictions are just a strong now regard ing the advantages of this method of approach and I fed Ju thed in repeating what was then said in this connection ie that retroper toncil surgery of the pelvic portion of the ureter in the female should be condemned as it is at be the Mand Surgery and does not afford it to at the Abond Surgery and does not afford

ablation of th arise wh

applied

of the ureter has been removed but confusion does arise when the term complete ureterectomy is used where only a part and not the entire ureter has been removed

Co f

Willy Mever writing about the same time introduces an article on the subject with the statement that total evitigation of the ureter means the removal of the entire canal from a point just below the pelvis of the kill mey to its very entrance in the vessel wall

Most writers since have recepted the defin itions of these authors with the result that the term ureterectomy has been used in a very loose manner It would seem apparent to any casual observer with a knowledge of the anat omy of the urmany tract that as the urcter consists of three portions namely lumbar pelvic and vesteal to remove only one or two of these portions is to remove part and not the whole. The term ureterectomy therefore should he used only when we refer to the reproval of the three parts or the urcler in its entirety as is our custom when we use the term nephrectomy splenectomy and appen dectoms to mean the complete removal of these organs. Any less removal should be de ignated as partial ureterectomy and the

Howard A Keily March 30 1893. In the cree the removal of the vescrit portion of the ureter has attempted through the vagina six weeks after the removal of the hadnes and the lumbra and pelvic portions of the ureter but unsuccessfull). His second effort made several years later was however successful in this operation he udopted the same retroprinced and vaginal technique but completed the nephro ureterectomy in one six time.

Bovee Greeau and other operators have mee attempted the complete removal of the treets by the combined retropertoneal and vaginal route but their results were not sufficiently satisfactory to warrant the continuate of this combined procedure. The difficultie met with by those who have attempted to remove the viscal protron of the uterier per tagina are hemorrhage breaking of the untertractive and loss of the retriviety and

Dr Howard A kelly is credited also with having performed the first complete nephro unterectiony in the female through the combined lumbar and transabdominal route. In the second case kelly removed a section of the bladder will with the terminal urter.

The listory of surgery furnishes us with but few cases of complete removal of the ureter primary or secondary in the male or female.

APPRO-URETERFCTOMY IN THE FEMALE

The retropertioneal route for the removal of the kidney is universally adopted in both male and female and its advantages are too obvious for discussion but white the mire ureter in the male may be removed advantageoush, through this route the question of its preference in the female is debatable.

k kid

specifically noted elsewhere the approach to it by the retroperitoneal route is easier and safer than in the female

Refore discussing the advantages and di

have been adopted when removing the entire ureter in the female. The early operations were done chiefly for the removal of the tuber calous ureter and are referred to in this article only because they bear upon the history of the complete removal of the ureter.

Dr Hovard Kelly who was the fir t to attempt and first to remove completely the

COMPLETE REMOVAL OF THE BRETER IN THE FEMALE

CONTINUE NATIONAL TO THE PARTY OF THE PARTY						
\ m	D	Or t	R	P th 1 gy	Stag	R It
k lly	(6 t°s 1)	h ph o- teres my	Repet 1 1	T berc los kd y		F7 t mov mpltly b essc Ipor fth
k lly	5	y by o ec mà	R pr 1 d	Threl ked y		8
C	,	Aph ur ect my	R pr l d	Tb l kd ey		m h
В	1	y bpro- f mh	Rtpe 1 d	,	-	,
k lly	k&B g	hiph ur ect my	Ro-d pe	T bere laus kida y		De th
k lly	90	hphro-terect my	Ro-dtpe	Tb i kdny		5
Lo Lo	9 3	Niph ur tmy	Rip 1	R 1 1 t t eopl m		Rec thild g wh T t d Op S d o Oct wh can ry Viy G with lim t d sappe ed
B #Il	71 07	h ph o- eci my	Rtdtp	R 1 d ral paplim:		S N 7 d f

to work. The uterine vessels may thus be clearly defined and easily manipulated severed or left main thereby lessening the danger with respect to hemorrhage and for the same reason the dislocation and management of the vesical portion of the ureter is done with greater case and exactions

CONCLUSIONS

That implants occur from above downward or in the direction of the urine stream and never from below upward unless by continu ity therefore the urinary tract below the pri mary growth is peculiarly subject to this form of metastase.

That when renal papillomata occur the

that implants may occur anywhere along the ureter but are more hable to occur when there is a retarded flow as at the vesical

onfice or at points of injury as when the ureter is severed and tied on partial removal

That we are not justified in concluding when nephrectomy is contemplated for renal papillomata that the ureter is in its entirety normal because its vesical ornice seems not probed.

Th 1

the ureter under these circumstances is a probable pathological entity it is advisable to remove it in toto

That if the urcter is not completely removed at the time of nephrectomy its remaining portion should be removed as soon after as

the combined transperitoneal and transvesical

the safeguards at our command that the transpentoneal route permits a direct approach and unrestricted access and when pelvic complications exist recognized or un recognized previous to operation they can immediately be corrected to advantage.

Of the many prominent writers who are strenuously opposed to the tran pentional route we find such men as Morris Keen Cheyne Burchard Fuger Burchard objects

the event of leakage of urne Irom the ureter the peritoneum may become infected and the position of the wound does not permit a free drainage. Morts is of the opinion that the surgeon should under no circumstances approach the ureter transperitoneally. Fuger is of the opinion that intraperitoneal ureterectomy should be done only when access outside of the peritoneal cavity is possible. Since the arguments of Morris Burchard Keen and dominal approach much has been learned in the art and seence of surgery. But as the retro peritoneal approach is preferred by the major tily of surgeons today we must conclude that

infectious urine into the petitioneal cavity. Also that drainage of the wound is not possible. These objections when applied to the removal of the ureter down to the bladder junction are not valid for the reason that when the ureter? To removed transpersioneal by the canal of the ureter is not entered except when the ureter is severed. When this is done by the technique herein de cribed the ureter? I first tied above and below then severed between with a kinfe first immersed in pure carbolic acid. Each cut end; then again cleaned with curbolic acid and alcohol in the same manner that the appendix?

h in re than in removing an unruptured appearant of pus tube

is in ms

in fact we are constantly dealing with intra abdominal situations which have greater possibilities of sepsis but from which we do not

taminated through any pelvic lesion

Mckechnie 1912 in an article on ureteral surgery used practically the same argument in advocating the transabdominal route as those advanced by me Mckechnie quotes Sinclair White and Densly as enthusiastic advocates also of the intra abdominal route

In spite of the successful results obtained by surgeons who have adopted the intra abdominal route for operative work on the abdominal portions of the ureter in the female vet as Mckechine apilty puts it blad tra dition still rules the realm of ureteral surgery

The transpertioneal or intra-abdominal route through the median abdominal increasion necessitates the least injury to tissue and lessens the hability to infection and her na By the retropertioneal route there are encountered several important nerves and in the female several blood vessels which may embarrass the operator in his work. By the trunsperitioneal route the ureter is approached directly unless there should exist as a com-

ficulties may become insurmountable Because of the limited space afforded by the retro peritoneal route management of the vessels

ve

muscle bed or re eet accurately the baudler will with its terminal ureter and papillomatus growth By the transperitoneal approach we have more than ample space in which to minipulate and the broad lagiment in the region of the cervit though apparently an obstacle in reality is not as a window in it may be mide at a point immediately above the junction of the ureter with the bladder wall affording ample view and room in which

I shall not enter into the detail of the evi dence which he produces in favor of this assertion but if we grant that he has done so

It does not prove that cancer can be caused what does that prove? by this organism alone nor that it is frequent ly produced by it under the practical condi-

tions of every day life It does not indicate that cancer is ever so produced outside of the highly artificial conditions which have been brought about in these laboratory experi

There is no proof that some other microbe might not have served in the experiments ments might not have served in the expensions quite as well or better The fact that the author tried two other micro-organisms does not exclude this possibility by any means So far as the evidence soes any one of a hundred might have produced the same results

The matter seems to come down to this That cancers were apparently induced in animals and maybe in man perhaps by irritation perhaps by inoculation or perhaps as the result of irritation combined with

inoculation The irritation and the inocula tion were of a character which has no parallel

in the daily life of men and women Given the conditions there is nothing par

ucularly surprising about the results and significance should not be attached to them beyond that which is claimed by the author Let us not extend our conclusions beyond the scope which the author has given to his paper Nowhere does he say he has found that cancer in human beings is produced by a bacterium and by one alone and that he has found that organism Far from it He does not say that cancer in mice or in dogs or in man is due to a parasite He does not say he thinks his micrococcus is often the inciting cause of cancer It is of the greatest importance that care be taken by medical men and the general public to abstain from drawing any such It may be that cancer is caused by a mi inferences

crobe and that Dr Nuzum has discovered that organism but his researches as described in his paper go no further than to suggest it

THE APPLICATION OF FACTS AND OPINIONS RESULTING FROM LABORATORY FYPERIMENTS TO THE PRACTICAL WORK OF CANCER CONTROL¹

By GEORGE A. SOUPR IND NEW YORK
M D r D ceto Am Sec y | 5 Co red | Care

THE paper before us deals with the subject of inoculation and irritation as canative factors in the production of cancer but the speculations to which it gives rise extend far beyond this horizon. Unless I am very much mistaken there will be people who will read into Dr. Nuzum s work a confirmation of the supposition that cancer like dipb.

conjectures and opinions which carry the conclusions perhaps further than the author intended The language is strongly affirma tive There are few qualifying phrases The experiments and the description of them are individual Nobody has apparently checked up or been asked to check up the author's technique or his results. I was one of a party of three who had the privilege of visiting Dr Nuzum's laboratory some months ago and hearing him describe the work which he has done but none of us expressed any opinion or perhaps felt qualified to express any on the evidence and there is no indication in the paper that any enticism has been offered or obtained

It may not be amiss in discussing Dr. Nu.

be further investigated Such speculations contain a distinct element of danger for if they gain currency, they will threaten the foundation upon which the most hopeful work for the control of cancer is being carried on II people get the idea that they can be cured by a serum they will not be alert to recognize the early symptoms of cancer and apply immediately to capable physicians for the treatment which science and experience now show to be necessary

The public must understand that at the present time surger, and radiation in early cases not only afford the best bope but the only hope of cure and that this might continue to be true even it cancer were found to be due to a parasite and the parasite were droctered. To solate the microbic cause of a die ease is not necessarily to find a curative serum for it by any means. Physicians are familiar with this fact with reference to tuberculosis for example

Dr Nuzum's paper is obviously intended to be a straightforward statement of fact but with this fact are interwoven interpretations heart of the matter

For papers of this kind should be tested in every important particular. The results reported cannot be accepted or rejected with out careful consideration Too much hangs upon the question whether the author is right or wrong. We must realize that in the causation of cancer we are dealing with the most important medical problem of the day If Dr Nuzum is right and we all hope that he is his work deserves to be heralded as among the most important di coveries of all time If he has fallen into any of the errors which beset the cancer investigator the sooner we know it the better With this proposition I am sure Dr Nuzum will him self fully agree

Dr vuzum says he bith, s evidence to prove conclusively that repeated mocula trops of a certain micrococcus isolated regularly from early breast cancer have produced genume metastassizing carcinoma both in the lower animals and in man.

Pese i dus b ymposi m C neer Cl at 1 Co gras f Amer Cli 15 cons N 1 k Oc b a 6

m tastate infection occurs so early that the patient does not come under the surgeons care until this complication has taken place It is plain that all of those whose hires have been saved by an early operation performed at the only time when surgical interference promises permanent relief would have been killed by the cancer had the operation been postooned

From the nature of the disease and the fact that it is frequently located in a part of the body where it cannot be discovered sufficient by early or where its removal is not possible in case it can be discovered the percentage of cases that can be cured by surgical operation

must always be small

Up to the present time the decrease in
deaths because of surgical operations amounts
to very little when compared to the total

increase in deaths from cancer

Enough statistics have been accumulated to
fill a large volume all proving upon careful
analysis that there is an actual increase in

important of these are contained in the splen did work of Frederick L. Hoffman (6)

As an example it may be interesting to analyze the statistics of the State of New York (3) During the year 1922 there were 69,437 deaths in New York State from all causes with 5945 from cancer and during the year 1923 there were 69,49 deaths in the State of New York with 6.28, from cancer

From this we see that while there was no increase in the total number of deaths that occurred during the year of 1923 over the number that occurred the previous year there was an increase of nearly 6 per cent of deaths due to cancer

In fact there wa a decrease of 337 deaths during the litter year from all other causes (o 5 per cent of the total number) while there was an increase of 340 deaths due to cancer (6 per cent of the total number)

It is also interesting to note that while in 1922 there were 934 more deaths due to cancer than to tuberculosis in the state of New York this number had increased to 1 337 for the year 1923 because there had

been a decrease in the number of deaths from tuberculosis and an increase from cancer

Similar statistics are available from all civil ized countries. In some instances the per centage of increase is less in others greater but in practically every instance there is an actual increase.

actual increase
Jessen (7) gives statistics showing that in
Basel a city in Switzerland the death rate
from general causes fell 50 per cent during,
the half century from 1870 to 1919 inclusive
while during this period the death rate from
cancer increased 200 per cent

It is to be borne in mind that the Swiss statistics have been accurate during this entire penod

The only parts of the world in which there

another century the mortality of cancer will equal that of all other diseases combined

Not many years ago the death rate from tuberculosis exceeded that from cancer and there was an increa e in deaths from both diseases. With the discovery of the tubercle bacillus however and the subsequent prophylavis the mortality in tuberculosis has decrea ed rapidly while that of can er has constantly increased.

At the present time a case of leprosy i practically never seen in this country or in I urope while in the middle ages this di case was a common as tuberculosis and cancer in Turopean countries where it is reported that there were 19 000 leproseries or homes for the housing of lepers at one time

Noway for instance was full of lepers less than a century ago so that hundreds of these unfortunates could be seen daily in the streets of Norwegian cities and villages. Now the country is already left free of this disease since G \ \frac{11}{11} = -\left(\frac{1}{2}\) free of this disease that left

was tr

bealths by long continued intimate contact or possible by the aid of insects

I am convinced that cancer will have the same fate when once its parasitic nature has been established and accepted and when

CANCER INFECTION¹

B ALBERT J OCHSAER MD LLD FACS C c.co

In the entire field of medicine there is at the present time no question so urgent as that of cancer infection. The subject deserves the attention of every physician and surgeon of every institution of learning in which medical subjects are considered and above all things it deserves the attention of the public and the finuncial support of the Government.

Approximately 50 000 American soldiers who served in the late war died as the direct or indirect result of wounds and an equal number from influenza and other diseases The United States Government has spent more than one billion dollars during the past year for the upkeep of its army and navy and for pensions. It has spent an equal amount in interest on the debt incurred during the World War Not one dollar how ever has been spent in the mivestigation the relief or the prevention of human cancer in fection and yet statistics show definitely that there have died from the infection in this country during the past year a number equal to all the lives lost from disease and wound as a result of our late war

Moreover the number of fives lost in this country from cancer during the ten years since the beginning of the late war exceed all the lives lost from wound in all the wars in which this country has been involved since its beginning including the War of the Pevolution

A further study of statistics shows that out of every 8 women and every 12 men 11 doomed to due of cancer unless our present methods of prophylavis and treatment are changed for the better in all civilized communities.

The tremendous importance of this subject must be apparent to every one who appreciates the fact that of all the people alive on the globe today more than one hundred million are doomed to the of cancer unless some new plan of prophylaxis and cure is introduced

Statistics prove absolutely that in every part of the world except the Arctic regions and the regions inhabited by uncivilized people there is an actual increase in the percentage of death from cancer

In my personal studies of the cancer prob lem extending over a period of forty years. I have accumulated more than one thousand references to the various phases of this disease and its treatment. A very complete review of the entire earler literature has been made

in the book of Jacob Wolff (3)
With the notable exception of a mot remarkable book Canter How It Is Caused
How It Can Be Prevented by J Ellia Barker (4)
we find that in all of this enormous hiterature
there is but little reference to even an attempt
at prophylixa saide from the advice to elm
initie irritation of every form The book
should be read by every pny scan and surgeon
and by every layman throughout the whole
world This work analyses practically all
known facts concerning the disease and comes
to conclusions which should be considered by

The book 1 written by a layman who has analyzed in a remarkable manner a large por tion of the most important cancer literature. To the experienced clinician many conclusion must of course lack that which only actual contact cut supply but the reasoning is both

lies of the ars spent discussed the way

toward curbing the progress of cancer infection in the same manner in which leprosy infection is now bein, curbed

Every experienced surgeon knows that can cer begins as a circumscribed lesion and that if this keston is completely removed before metastatic infection has taken place the patient will be permanently cured. He also knows that in the vast majority of cases

Add ess I turing p esid Cl 1C gress F tuner C liege 15 geo N Y k Octob

man beings in one vicinity and cause malaria while in another vicinity the same species uninfected are perfectly harmless

Again the fact that rats may eat cock roaches obtained from one source ad libitum without developing stomach cancer while they regularly develop this disease upon consum ing cockreaches from another source would indicate that the former cockroaches were free from infection with Nuzum's micrococ

cus while the latter were not

Again the fact that the Japanese the Swiss the Danes the Dutch and other people who consume large quantities of uncooked vege tables grown in soil fertilized with human and animal excrement show a high percentage of stomach and intestinal cancer while people in India who eat only cooked food and inhabit ants of tropical and Arctic regions where food is not so contaminated are practically entirely free from cancer of the stomach and intestinal tract would indicate that in the former case the excrement contained in the food carried with it the micrococcus of Nuzum while the food in the Arctic region and that eaten by uncivilized people in the tropics does not

eat the same manure infected food in India that they eat at home are not free from stomach cancer

A notable example pointing toward the infectiousness of cancer is reported by Behla

the west a subdivision called Sando with 1 000 inhabitants The percentage of deaths in Kalau from cancer based on the entire number of deaths was over 11 per cent while in the entire town compri ing the three sec tions it was less than 4 per cent

Sando was nearly free from cancer deaths The people are farmers in the three sections and their babits are identical

The land of Sando is dry and sandy that of Kalau is moist and Luckau lies between these two portions and had fewer cases of cancer than the low lying Kalau but was not as free as Sando A ditch into which the water drains from the higher land encircles the town of Kalau and all the gardens are watered from this ditch and the inhabitants in this portion of the town wash their vege tables in the water of this ditch and many of these vegetables are eaten raw clear that the cancer infection must have come from the sewage collected in this ditch In this instance only the manure caters were the victims of cancer

Again the fact that the Japanese are almost free from cancer of the skin while the opposite is true of people in many parts of India would indicate that by daily bathing in hot water the Japanese free their skin of the Nuzum micrococcus while the people of India because of their extremely filthy skin suffer from skin cancer because the Nuzum micro coccus has an excellent field for its activity And so we can analyze every known fact con nected with the development of cancer and the fact can be explained by the presence of

Nuzum s micrococcus

The mouse breeding experiments of Maud Slye (10) scree admirably to confirm Nuzum s observations. She has made the important observation that skin cancer in mice frequent ly arises in open wounds due to trauma re sulting from fighting. The wounds provide excellent opportunity for the entrance of the cancer parasite in susceptible animals

In experiments for cancer when an open sore is maintained for a long time the mirrococcus can easily enter The observation that this form of cancer can be produced in a shorter time in cases in which the skin has been repeatedly scarnied for a number of days before the application of tar was begun would further canfi m h -

custure medium it has long been known that in advanced cancer of the stomach lactic acid is present. It has also been found that can cerous tissue elsewhere contains lactic acid

prophylactic measures based upon this knowledge can be carried out

It seems hely that a study of the habits of the nucrococcus isolated by Nuzum (8) will have the same effect upon control of cancer that Hansen's discovery of the bacillus of leprosy has had upon control of that disease

At the present time it seems most important to have the etiology studied from every angle A most important factor in connection with this study is an absolutely open mind

Every scientific investigation has been ham pered and in many instances made impossible by the stupidity of men with acknowledged scientific stunding because they have con

due to faulty judgment faulty technique or lack of intuition

În scientific investigation negative evi dence has little ultimate value because the omission of a single element in the consid eration which results in a negative conclusion makes the negative conclusion absolutely worthle s We have an endless number of examples to prove this rule and for this reason all negative evidence should be dis regarded in cancer research. I refer especially to the negative results in the search for natho genic micro-organisms. In order to be efficient the research worker in this field must not only inform himself fully of the known facts but he must study every supposed known fact critically before making it a basis upon which to build his own conclusions. The fact that thib no need that οŧ

on

The enormous array of evidence proving that tuberculosis was not contagious was of

- ad o van I discover every

some 165 distinct clinical disease en less than 75 per cent has been proved to be

due to different bacterial infections. Since the estimate was compiled no less than 7 of the remaining number have been proved conclusively to be caused by certain specific bacteria. It is appalling to what an enormous extent parasitism is responsible for the various authentis which afflict manking.

There are still some who deny the existence of microbes and others who deny any causal relationship of bacteria to disease. But to the professional man of experience with an open mind the specific germ theory of cancer must at least demand careful consideration.

After the truth has once been discovered it is relatively a simple matter for any person with ordinary intelligence to confirm the truth but the original discoverers of the truth the men and women with scientific intuition must always be few. It is for this reason that it is so important for many in vestigators to search for the actual cause of cancer because there may be among them a Pasteur or a Abasen.

I am convinced that John Nuzum's research in connection with the study of cancer in a short time will be recognized as being on a par with the di coveries made in tuberculosis smallpox and legrony

The invariable presence of his microoccus in cancer in man and in lower animal the fact that typical metastasizing cancer has been produced in lower animals and in man by inoculation with pure cultures of this microoccus and the fact that pure cultures of the same microoccus obtained from these cancers thus produced have again produced.

of Maud Mye (10) u u 10 duction of cancer would indicate that in the former ca e these norms were infected with Nuzum 5 micrococcus while in the latter case they were free from this infection precisely as microtia anopheles mosquitoes may bite hu

and lot

rre

do they develop cancer So the dog is the animal most commonly subject to cancer with the possible exception of the barn yard fowl which is said by men engaged in buying chickens and dressing them for the market to suffer to a very marked extent from cancer Hens are notorious manure eaters and are consequently very liable to infection The fact brought out by Nuzum that the micro coccus which he has described is the only con stant factor in cancer of man and animals seems to me to be the most important fact relating to the ctiology aside from the addi tional fact demonstrated by him that metas tasizing cancer can be produced by the morulation of man and of healthy animals with pure cultures of this organism and the finding of the identical organism in cancer produced in this manner

The statement laid down in Brand's () remarkable book. If any alleged cause en tirely fails in any one case then that cause cannot be the true and exclusive one applies in this instance. The only three factors that seem to be constant in the development of cancer are (1) irritation of some form (2) absence of an alkaline medium and (3) the

presence of Nuzum s micrococcus

CONCLUSIONS

the total removal of the cancer

- 3 At first the cancer increases by invading the surrounding tissues
 - 4 Later metastases are formed by the 1 Il Com theo an
- 5 For a time these infected cells may be interrupted in their journey by intervening lymph nodes

6 The removal of the original growth to gether with all of the infected lymph nodes may still result in a permanent cure

7 The can be accomple hed with greater certainty if the removal is carried out with the cauters in tead of the knife because the

cauters will destroy in its course any cells which may contain cancer infection

R If the growth is removed with the knife and the incision is not made far beyond the infected area the cancer is likely to spread rapidly because lymph spaces will be opened through which the infection will be carried beyond the reach of a future operation

o For the same reason portions for mi croscopic examination should always be re moved with the cautery before operation

10 In case the cancer has been permitted to grow for too long a time or has been in completely removed at the primary opera tion so that it cannot be entirely removed there is but little hope for a permanent cure but a case can occasionally still be saved by the careful use of radium or \ ray under the direction of an expert

living in civilized communities

15 Uncivilized people who have been free from cancer soon become infected when they come to live in civilized communities

- 16 Domestic animals hving in civilized communities also become infected with can cer wild animals are free
- 17 Cancer develops in areas subjected for a long time to irritation which may be me chanical thermal chemical or radial
- 18 Cancer rarely occurs in skin covered by clothing
- 19 Filth applied either externally or in ternally influences the occurrence
- 20 Clean skins are rarely the seat of can eer as shown in the case of Japanese who take daily hot baths
- r Filthy skins are likely to become the seat of cancer in the presence of the necessary local urntation as is shown in the fact that cancer develops at the seat of Langra burns
- 22 Per ons cating vegetables grown in soil fertilized with human excrement suffer largely from cancer of the stomach and colon

It has long been observed that cancer is common on the proximal side of the pylorus and on the distal side of the ilecoacal valve while it rarely occurs between these two soluncters.

The contents of the alimentary canal are acid in the stomach and in the colon and alkaline between these organs. The mabbity of Auzum's nucrococcus to thrive in the all kaline small intestine and its ready growth in the acid medium of the stomach and large mitestine again corresponds admirably with

our clinical knowledge

Moreover it has been found that although
Nuzum a micrococcus grows freely in abdom

tissue is actually endowed with the specific power of exciting normal epithelial cells to neoplastic growth Every theory attempting to explain the

to be due to the action of micro-organisms

It seems perfectly clear that most if not all of the elements of these theories have some relation to the chology of cancer because they

L - 1 h n sh

blood of the body i comparatively so rarely the sest of cancer?

The fact that it requires repeated inocula tions of the microsoccus over a considerable period of time to produce a relatively large number of cancers in mace of non cancerous strains is curricly analogous to the latent time element in the experimental far cancers of thisse animals.

August has been able to produce 21 per cent of genuine carcinomata in his series of nuce inoculated with pure broth cultures of "" "an breast

> of carry iltures be

cause human cells could not survive in the lower animals. Moreover in the great major ity of his animals extensive lung liver and cland metastascs were found.

Pethaps the most important fact brought out by his work is the observation that none of the control series of fifty muce in oculated in exactly the same muner but with cultures of ordinary bacteria developed can cers. This points most strongly toward the

The same: true regarding heredity How ever according to the many excellent pa

certain animals are especially habit to muction and that certain organs in these animals serve as an especially layorable medium for this infection. The enormous number of can eer muce in this collection must make a veritable mouse cancer village, which would make

contagion and infection most liable
Since the early experiments of Wehr (1)

artificially in animals in which it is known not to occur spontaneously as in the rabbi

Again the same species of animals which in the wild state never develop cancer will contract the di case when they come to live the discount of the discount of the discount state. The

with human beings in the domestic state The

n n

the same people are due to tai

Again the more closely domestic animals r are associated with man the more frequently

THE EXPERIMENTAL PRODUCTION OF METASTASIZING CARCINOMA IN THE BREAST OF THE DOG AND PRIMARY EPITHELIOMA IN MAN BY REPLATED INOCULATION OF A MICROCOCCUS ISOLATED FROM HUMAN BREAST CANCER¹

BY TOTIN W NUZUM MID CRICAGO Hospital Chicago adits D partin t f P th logy d Bacteriology Uni ers ty f Illin it Coll g f M dicin

LTHOUGH the di ease was well known to the ancients it may not be amiss to remind you that the greatest problem confronting the medical profession today hes in the solution of the cause of cancer It exists

been written on the subject while investiga tors throughout the laboratories and clinics of the world have devoted their lives to a study of this great plague

In brief cancer investigation may be divided into three important periods arst because of its longal importance the period of search for the cancer parasite second the period of study of the transplantable cancers of the lower animals and more recently the period of experimental tar cancer production in rabbits and mice Fach period of study has brought forth new and important facts Per hans the most definite and even the most im portant of these observations from an etiological standpoint is the general recognition of the essential long continued period of chrome irritation so frequently bacterial in nature which precede the onset of malig nancy I refer to the precancerous lesion and to that certain preparatory time element which must always supervene before the nor

in this paper I propose to focus attention on the parasitic cause of cancer and shall bring evidence to prove conclusively that repeated inoculations of a certain micrococcus isolated regularly from early human breast cancer have produced genuine metastasizing carcinoma in the dog and primary cancer in

man This study was begun in 1918 and bas been carned on for the past 6 years when time and materials permitted. In the August number of Surgery Gyvecology AND OB STETRICS 1021 I (5) first reported the results of my study of a transplantable carcinoma of the white mouse By employing the partial anaerobic tissue ascitic fluid culture media I was able to isolate with great regularity the same minute gram po itive micrococcus. Its cultural and morphological characteristics were fully described in this paper. In three instances a single injection of a pure culture of L

duc car tially from the original spontaneous tumor Each of these three tumors were transplantable into other normal mice. These experiments were conducted under conditions designed to prevent the carrying over of living tumor cells. More recently the same micrococcu has been isolated in pure culture from 38 of 41 early human breast cancers from me tastases in the avillary glands and repeat edly from metastatic growths disseminated

pro

throughout the body. An unlimited amount of early breast cancer material has been available for study at the Surgical Clinic of the Augustana Hospital METHOD OF CULTIVATION OF THE

MICROCOCCUS

The entire breast and axillary glands re moved by radical amputation are placed in a sterile container and sent at once to the laboratory Only early human breast carci noma has been utilized. The pectoralis mus des are seared with a hot spatula and the tumor nodules removed from behind care being taken to avoid the overlying slin small blocks of cancer tissue or enlarged Pr se ted in the ymponium Cancer bef re Clunical Co pr un of Americ College 15 groot N w Y & Oc ber on-

- 23 There is little if any cancer among uncivilized peoples
- 24 The natives of the tropics and the Arctic regions are equally free from cancer
- 5 These two classes live on food not con taminated with manure or human excrement. In the tropics natives live largely on vegeta bles in Arctic regions on animal diet
- 26 Cancer of the mouth occurs as a rule in the presence of fifthy decayed teeth with ragged edges. It is much more common in men than in women.
- 27 Cancer of the lip though common in men rarely occurs in women
- 28 The actual cause of cancer has not been established to the satisfaction of all who are entitled to an opinion
- 29 Heredity seems to have a definite relation to the development of cancer in that it at least provides a predisposition or lack of immunity.
- 30 What seems to be heredit; may be that the members of the same family have been exposed to the same type of irritation and the same sources of infection
- 3r Cancer in plants has been proved to be due to the bacillus tumefacens by Erwin F Smith of the United States Laboratory of Plant Pathology
- 32 John Muzum has isolated a filtrable micrococcus from many cancers in man and in animals
- 33 Healthy animals inoculated with pure cultures of the micrococcus have developed typical cancer and have died after the devel opment of typical metastatic growths
- 34 The same micrococcus has been related from the cancer produced artificially
- 35 In a patient suffering from a hopelessly inoperable cancer repeated subcutaneou injections in a distant part of the body of pure cultures of this micrococcus produced a typical cancer
- 36 While Nuzum was able to produce typical metastasizing cancer in 21 per cent of the mice repeatedly injected with pure cul

- oped cancer after inoculation in exactly the same manner with ordinary bacteria
- 37 The fact that Nuzum has been able to produce metastassung cancers in loner am mals and in man by repeated inoculations with his micrococcus proves conclut rely to my mind that this parasite so constantly present in human breast cancer possesses the specific power of evoluting normal epithelial cells to malignant neophastic growth.
- 38 The United States Government should provide means for the study of cancer to the same or to a greater extent than that provided for the study of diseases of domestic animals and plants

BIBLIOGRAPHY

- BARKER J ELLIS Career h wit scaused how t can be pre nited New lo k D f D it n & Co Bra D A T Can er lis Cause T ealme t and Pre v nites Londo J hn Bale Sons & Dani Ison
- 3 BULKLEYL DUNCAN Cancerd ath mt in New York
- 6 there were tagabanter L. 15 1 a ty C.
 Thro ghout the Wold Prude tial Press 19 5
 7 Jassey Schweiz med Wichnschr 9 0 to embe
- 8 Nozem J W The expen ent lprod cu nof met

Fg Them c tool 1 d form thy heman Fig I lypene usepth! Thyprplasa fishin fm se b L The nditin foll wed ep i d o

at sof the micrococcu i lated f m hum n beat fig. Prec c u ul. fihe k. fih m u ent the t of peaced in culati

cultured from tubes of dextro e broth onto sold media with free access of orgen. It grows well in metha composed of three parts of assent fluid plus one part of 2 per cent untrent agar. Minute grajsh colonies appear after 3 to 5 days incubation disseminated throughout the media.

Subcultures on standard human blood agrir plates appear as grayish white pinpoint sized colonies. Streak cultures on this media exhibit an elevated luxuriant grayish white growth. After 24 to 72 hours incubation a

ocen isolated in pure culture from 38 out of 41 early human breast carcinomata all proved by microscopic sections. It has been recovered from the metastases in the axillary glands 13 times from the ascitic fluid in a

catedroma No 11 From one patient ad mitted with recurrent breast cancer the micrococcu was 1 olated on 6 different occa ions from recurrent skin carcinoma nodules excited under local anesthesia as well as from

the lung metastases and secondary lymphatic

Subcultures inoculated in sugar broth do not ferment device e laevulose or mannite

gelatin incubated at room temperature for z weeks gave slight fluidification at the top of some tubes but in no instance did complete liquefaction ensue. Devtrose broth is a most lavorable cultural media both for pinnary and subculture inoculations. A luxurnari growth develops with trubipativ of the broth and the formation of a granular precipitate sedimenting to the bottom of the tube.

In the Issue ascit fluid media under parafin oil the minute forms are filtrable. These filtrable forms also predominate in decrose broth cultures—to 3 weeks old. They pass through Mandler and Berkefeld

ρr

with paratin oit has yielded a pure growth of the minute organ in after 5 to 8 days incubation. It has been established beyond doubt that the smaller and larger forms of

axillary glands are crushed and emulsized in tall tubes of dextrose ascitic broth overlaid with sterile paraffin oil or solid petrolatum to effect partial anaerobic conditions. In many instances tubes of dextro e broth overlaid with paraffin oil without the ascitic fluid or kidney to sue were inoculated with the emul sion of cancer tissue. Control tubes of dex trose broth are always incubated along with the inoculated tubes. Several hundred cultivation experiments have proved that an original growth of the nucrococcus has never been obtained on solid media organism is isolated in dextrose broth with or without ascitic fluid it multiplies in subcul ture generations with increasing case after previous adaptation to artificial cultivation

CULTURAL AND MORPHOLOGICAL

The peculiar micro organism isolated so constantly from human breast cancer is identical in its cultural and morphological features with the organism previously isolated from the transplantable cancer of the mouse It exhibits the following growth characteristics Commonly at the expiration of 48 to 72 hours incubation a distinct grayish white opalescent halo appears about the carcinoma tissue at the bottom of the tubes of ascitic dextros broth Gentle amtation of the tube increases the degree of turbidity Control tubes routinely incubated with the cultures remain brilliantly clear. After sev eral weeks of incubation a granular or floc culent precipitate forms. In old cultures the upper column of fluid often becomes clear

Subcultures are made by transferring from on to 0.3 to 0.5 cubic centimeters of the original culture pipetted from the bottom of the tube in close proximity to the tissue fragments into the next series of tubes. The initial changes in subculture generations are always more marked and the turbuidty in the tissue zone cylubits a distinct tendency to rapid diffusion upward rendering the clear media accommodation of the microsoccus to cultivation under artificial conditions.

Pure cultures of the minute micro occusobtained so constantly from both mouse and

human breast cancer present uniform mor phological and cultural characteristics initial cultures in the tissue ascitic fluid the small forms always predominate although a considerable variation in size may exist in the same culture tube. The larger hodies repre sent degeneration or involution forms so fre quently present in old cultures smears from the bottom of the test tube after s to 7 days incubation under partial anaerobiosis reveal many definite minute coccal and ovoid bodies arranged in pairs chiefly but al our short chains and clumps The organism stains best by Gram's method or the Giemsa stam It is non motile and not encapsulated In young cultures the minute forms are Gram positive retaining the gentian violet dye Other stains such as Loeffler s alkaline methy lene blue carbol gentian violet or carbol fuchsin all stain the organism without give

from the lower level of the tubes after pre

than with the Gram state the pulpe of the culture and the constituents of the media Minute bodies averaging of the og of a morton in diameter predominate in early cultures. The microscous is extremely pleomorphic. In older cultures or in tubes of dectroes broth the smaller forms predominate. The relative variation in the old the cocal bodie depends entirely on the cultural modia employed and the varying degree of

Although in our experience an initial provide of the organi in has never been brained on solid media it is readily sub-



fel a brast cm thafte in the th merococ spoit diom Ti ti t cance ere mad

tun of coal tar produced by distillation vielded excellent results. With such a che tillate they have produced mahenant can cers within 4 months time Metastases were observed in the lymph glands and in 30 to

to per cent of the animals lungs Erwin Smith (6 and o) has summed up the results of experimental tar cancer work in a most admirable manner. He says

The tar treatments involve a long continued open wound subject to and inviting all sorts of infections so that if there were a cancer parasite in the emiron ment of any of these animal at would be more or less certain to find lodgment and a very favorable nidus n these irritated raw places. The g neral impres ion one gets from the ta cancer experiments so far detaile I is that it requires great I bor and rationee to produce positive results and these

ord r d g owth In some c ses it seems to be an burn the ling continued action of soot of the of p raffin of arsen c the extretion of cer () om the Thise are the intants. It is not vet e tal lished that this re the actual cau e Mr er her all is a im tied the e are rare He chis plays its part but only in pre-

10 14 points to microparasites as the pr bable se is om ta and co cin m ta lery curious and n t uctive is the fact that many coal tar punt à n t end n cancers and in those which do it is not the bole stimulated region that be

cult emocal to comes cancerous, but only sinv scattered areas which

been to behave differently exactly as if they had become inlected INOCULATION OF MICE WITH THE MICRO

COCCUS EDOM THIMAN BLEAST CANCER For this experiment a group of 124 white 6 --- --

were inoculated as follows

Series 1 Thirty four mice all received prelimi

t nuced to June 30 1024 a total of 35 to 62 ino ula tions rubbed into the skin and giv n in minute doses intracutaneously and into the ulcer edges R Fo

taue or rupoting into the sk n and spiecting intracutantously and sub cutaneously a times a neek

CONTROLS

Se ses C Fifty normal vh te mice of the same ge and stock as above received a preliminary tre t ment with to per cent banum sulph de solution to remove the hair over a small area a centimeter ride near th tail on the animals backs. Inoculate as of a culture of streptococcus pyogenes and staphylo coucus albus were made 3 times a eek from April to luguet 25 1924 when the last mouse ded Minute doses of the culture were rubbed into the skin and injected intracutaneously and subcuta neously Autopsies were performed on all but a fer



Ing 4 Turn od 1 it I ngs of them use i I tel with the mic ococc s

Fig 3 lungs from use y no th 11 xcul 1 sweb 6

I 5 6 T mor odules nihe pl n fm se cocv grep t d in culatins f
the micrococcu from h man ca ct

this organism are but variations of the same micrococcus due to the different cultural media employed and the gradient oxygen tension present

EXPERIMENTAL INOCULATION OF MICE

Refore recording the results of the production of tumor nodules in the lungs liver spleen and kindneys of mice receiving repeated inoculations of the micro organism isolated from human breast cancer it appears advisable to review briefly the work on experimental lar cancer in mice.

The successful production of tar cancers in mice grew out of the well known chinical observation that cancer is prone to develop on special types of irritation due to prolonged contact with tar or soot (Tar workers can cert—Chinnels sweeps cancer)

In 1918 Yamagiwa and Ichikawa (8) reported the results of prolonged application of tar to the rabbit sear Papillomatous and ulcerative lesions of the kin were produced and termed by them follicule opthehomata or hair follucle cancroids Metastases in the lymph glands occurred in 3 animals

Tsutsu () a pund of Yamagissa em of experimental tar cancer. He used 250 nuce an 7 experiments does not hundred and ninety two animals died before the one hundredth day Of the 67 mice surviving more than 100 days of painting 16 developed carrenomata and r a sarcoma Lung metastas(s developed in a animals. Libiger and Bang (3) bave re corded similar results confirmatory of the preceding which leave no doubt that cancer will develop in a certain number of coal ter painted mice provided the irritant is coa

tinued a sufficiently long time
Murray and Wo_alam (4) have confirmed
these results in a most careful and admirable
manner A series of 190 mice 3 to 6 menths
of age were painted with coal tar for long
period of time after removal of the hart of
the back by 10 per cent barum sulphide
paste Many of their animals died e rly of
intercurrent disease. Twenty three mice de
veloped cancers of the structure of poly
morphic squamous cell carcinomata with
slightly developed keratinization. Three tu
mors were transplanted into normal mice.

Declman (2) has made the important observation that the association of another sort of trauma with tarring results in a shortening of the long time necessary to produce cancer. He scanfied the dorsal surface of has mice immediately before tarring on alternate days for a week and then tarred without scanfication three weekly for one

time necessary without scarnication

Finally Block and Dreifuss (1) have shown that repeated painting with a definite frac



g 7 Cn | ldg | a t 5 months after st rti g nom n bre tea er were m 1



Fg 8 Bgn ng s pe ficial utc rat on of skin p imacy tum f d g b ast Si m nths after hum n culture moculatio

tion of coal tar produced by distillation yielded excellent results. With such a distillate they have produced malignant can cers within a months time. Metastases were observed in the lymph glands and in 30 to 40 per cent of the animals lungs

Lrwin Smith (6 and o) has summed up the results of experimental tar cancer work in a most admirable manner He says

Th

or less certain to find lodgment and a very fa orable n du in these irritated raw places. The general impre ion one gets from the tar cancer exteriments so f r detailed 1 that it requires great labor and ratence to poduce positi e results and these

order 1 growth. In some cases it seems to be an

recredity plays its p rt but only 1 p c.iu

11 n t me I must 10 ha

> 1 5 as tre probable f sar omata and carcinom ta Very currot

comes cancerous but only tiny scattere l areas which been to behave differently exactly as if they had

become infected

INOCULATION OF MICE WITH THE MICRO COCCUS FROM HUMAN BREAST CANCER

For this experiment a group of 124 white

Series 1 Thirty four mice all received prelimi

tinued to June 30 1021 a total of 35 to 62 mocula tions rubbed into the skin and given in minute

u je ting intracutaneously and sub cutaneously a times a veck

CONTROLS

Se ses C Fifty normal white mice of the same

4 cted intracutaneously and subcuta n ously Autopsies were performed on all but a few



80

r res Many of these mice

months

GRO 5 AND MICROSCOPIC LESIONS

Repeated inoculations of the micrococcus regularly provoke an intense proliferation of epithelial cells. As determined by micro scopic sections taken at different time period the epithelial hyperplasis affects not only the deeper cells of the papillary processes but also there appears a marked hyperplasia of the epithelium of the hair follicles counci dent with an early connective tissue thi ken ing of the subcutaneous layer Frequently the process begins in one mall area as a down ward growth of the epithehum of the hur follicles and papilla of the comm Isolated nests of epithelial and lymphocytic cells ap near in large numbers lying deeply below the thickened epidermi

In Scries A the 34 mice ubjected to pie himitry scrification of the skin (Deelman method) unformly presented the gos lesions at in earlier date than series B. After but 6 weeks treatment there appeared over the irritated skin site multiple miliary warts of

Fg s tig pi her, eplast flig p thel m f thed tai ih dg bre i Fg si Prim ry care m of th dgsb t

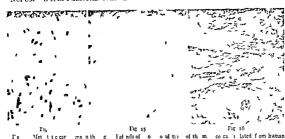
pinhead to pinpoint size. As many as 22 nere counted on the back of a single mouse. You small custaneous horn developed on the back of two mice which hed early. Many of this mutue war's receded but others were converted into superficial flat scabby ulters. Of the 40 mice in Series B all developed superficial ulters with raised industried nodular edges and granulating bases. In three the ulters pread laterally very slonly after the inoculations were stopped. In more of these mice was primary malignant cuta neous epithelional produced. Precancerou land results of the size of th

30 10 4

Of the entire number of 74 mice in Series
A and B if we exclude 22 which died early
before any mahignancy could superview in
12 mice dying at period of 3 to 7 months

liver and Lidneys

The e nodules appeared a by h white lesions in seminated throughout the lung or have or in other in tancer as sharply demar cated tumor nodule varying in size from a pinhead to a split pea. Seventeen such were counted in a single mourse fun, §



Microscopically these nodules appear as sharply localized tegregations of newly formed cells with hyperchromatic neutca arranged about the penphery of the bronch and in adding the long pyrenchyma or scattered discretely to form multiple isolated growth about newly formed blood vessels Mitotic figures are numerous. In three mice the peribronchial lymph elands, were invaded

While it is difficult to decide upon the exact

Fig. 15 Fpd rm deact m prim ry n the knof eg of liman F d n half months aft Fig. 50 Fr. usam. ca. at Figu. 5 ho ting a typeal pith! I pe 1 Epid m ide ci om of m nature of these newly formed cells it is per haps best to regard them at the present time in the category of the granulomati or lym phoeyelomate.

None of the mice in the control series of 50 animals inoculated similarly but with cul

cau e of death



Fg 3 Prim ry bre tt mor fthe dog Buerled



Fg 4 Wt tt od 1 ca conoma of the dog sl gs



animals caten in the cages. Many of these mice di d of septicæmia and intercurrent di cases. Sev.

CROSS AND MICROSCOPIC LESIONS

Repeated inoculations of the micrococcu regularly provoke an intense proliferation of epithelial cells. As determined by microscopic sections taken at different time neriod the epithelial hyperplasia affects not only the deeper cells of the papillary processes but also there appears a marked hyperplasia of the epithelium of the hair follicles coinci dent with an early connective tissue thicken ing of the subcutaneous layer Frequently the process begins in one small area as a down ward growth of the epithehum of the hair follicles and parilla of the comum Isolated nests of epithelial and lymphocytic cells ap near in large numbers lying deeply below the thickened epidermi

In Series A the 34 mice subjected to preliminary scarlierium of the skin (Deelman method) uniformly presented the gro s lessous at an earlier date than series B. Mitr but 6 weeks treatment there appeared over the irritated skin site militiple miliary warts of

Fg o ligh po e magnifeat nish g papilar apperplisa fith g epithelium fith d et th d g st g et le en Ig st Pn rv raren ma of th d g breast

pinhead to pinpoint size 4s many as 22 were counted on the back of a single mouse A small cutaneous horn developed on the back of two mice which died early. Many of these minute warts receded but other were converted into superficial flat scabby ulcers of the 40 mice in Series B all developed superficial ulcers with raised indurated nodular edges and granulating bases In three the ulcers spread luterally very donly after.

of the neous lesion

30 1924

Of the entire number of 74 mice in Series A and B if we evclude 22 which died early before any malignancy could superview in 12 mice dying at periods of 3 to 7 month after the beginning of the experiment fumor nodule were found in the lungs and hier and less frequently in the sphere and kidneys. These nodules appeared as gravn high tesions discenniated throughout the lungs or liver or in other in tances as sharply demartantly in the sphere of the strength of the sphere of t

NUZUM EXPERIMENTAL PRIMARY EPITHELIOMA FROM MICPOCOCCUS 351

noma with disseminated carcinomatosis led to the death of one animal

In a second pregnant animal repeated in jections led to tumor formation. These tu mors grew rapidly following gestation and suddenly softened and completely regressed leaving the dog immune to further inocula tions In the remaining 3 dogs of this series only an acute or chronic mastitis resulted

Goodpasture in a series of necropsies on 50 dogs dying of old age found an incidence of a per cent of spontaneous malignant breast tumors Inoculation of this micrococcus into dogs breasts has regularly resulted in the production of an acute mastitis gradually merging into a chronic glandular or cystic mastitis It seems fair to assume that the cancer produced in dog No 4 has arisen on the basis of a chronic mastitis Sections removed at various times for study have revealed many focs of precancerous lessons

Unfortunately pathologists differ greatly in their opinion regarding what constitutes precancerous lesions and whether or not mas titis predisposes to malignant hyperplasia

Delbet regards mastitis as a bacterial in fection with the staphylococcus albus as the most common but not the sole agent He assumes that the micro organisms gain en trance through the lacteal ducts and nene trate throughout the lobules Ewing states that th t

preasts excised for cystic disease showed pronounced precancerous changes or miniature carcinomata He finds very few cancerous breasts failing to show chronic mastitis in the penpheral zones of the breast tissue

Sir Lenthal Cheatle in studying whole sections of large numbers of cystic breasts both precancerous and definitely neoplastic concluded that cancer can and does insensi bly art e on the basis of cystic di case

EXPERIMENTAL EPIDERMOID CARCINOMA IN MAN

J W mile age 70 years a farme by occupation was admitted to the Augustana Ho petal January

a short time only It was enlarging penph rally and additional radium seemed to stimulate the

growth of the lesson Physical examination revealed a well nourished elderly male. There was a scar over the left ramus of the inferior maxilla where the mandible had been covered by a skin graft Seven years ago A J Othener removed a squamous cell carcinoma by cautery excuson from this site which has remained

of a nau-count tath indurated podular border and

ol both hands

Under ether anasthesia the malignant ulcer of the right check was excised with the cautery well into healthy tissue and the base was cooked with the soldering iron applied directly to the bony wall of the antrum

During convalescence in the hospital the patient received inoculations of a broth culture of the micro coccus from human breast cancer thrice weekly from February I to June 17 1024-a total of 62

ously

I ive weeks after treatment was instituted mul tiple pinhead sized warts appeared at the site of repeated 01 0

and hyr a hard of the

through us at sened epidermis A superficial ulcer developed and the edges became elevated and nodular with a shallow granulating base. A section

se ea a tylical epidermoid cancer of the

hs and

350

A series of 10 bitches of unknown ancesty and age presenting large pendulous breasts for the most part were chosen for inoculation liweekly injections of cultures of the micro occus isolated from human breast cancer were made by means of a Luer synnge and fine gauge needle directly through the ducts of the nipple into the nam of the breast parenchyma. An acute mistit was readily occasioned by the injections. The larger doses led at times to absects formation followed by humantana and sloughing. By carefully regulating the dosage and internal

injected November 1 1921 and the mocula tions were repeated with varying periods of rest during the ensuing 6 months. Eve does of the series died during the winter months of bronchopneumonia and may be evoluted. Two of the remaining 5 females developed tumors in several breasts. Section have been removed at varying periods for microsopie study. In one of these animals a huge rapidly growing carcinoma developed in one of the hind breasts apparently from a chronic cystic and glandular missitis. The protocols of the positive experiments follow.

Dog Yo 4 an old mongrel bulldog whose send to as established by the absence of many teeth and general signs of decreptude. Breasts were large but normal to nalpation

The animal received injections of an aerobic culture of the micrococcus recently isolated from a

Feb uary 2 1922 Palpation of several breasts revealed the presence of persistent hard die ete nod Ir mas 5. Thre distinct peasized tum nodul s in one breast alone. Inoculations made this ghi Feb. ary 8 to March 16 and all injections vire then stopp d

M ch 30 1922 The rear breast h d slowly enl rged The inguinal lymph gl d w p lpabl as time hard discrete odule of filbert si e

April 30 10 2 Dog ether d and portion of br t ntuning turn e c ef together with some

1 ut size trauma s ctions

p cture of genume carcinoma app ntlv ars g from the rap dly probl rating ep thelial cells I mig the larger ducts and acmi of the breast tissue Ma y h fds were visible v h e the epit lal cell ad b often through the basement memb ane and were infiltrating the stroma. The turn rodul presented the tipical h stodgey of medullary al veolar and fib serrhous earct oma. Vetastatic growth were persent in the Vinph gla ds.

By I ly the b east cane r had enl rged t the s of a hen s eg and sh wed an area of superficial ski ulceration the sze of a sl er dollar The dog

cancer nod les—ma , of these a centimeter thamet ? There vas metastat cond le n the spleen 2 centimeters in damete small bo el and greater oment m with cancer nod les despetable.

December 7 921 Small hite preg ant female with lactating breasts inoculat d with a aerobic

January 10 1922 All breasts 1 J Lu ture of m crococcus as above

January 17 1922 Reactions follo ing inoculation very slight

January 25 1922 Injections repeated

To summarize the experiment tumors de veloped in of the 5 dog which survived 3 months or longer A primary breast care.

SOME CLINICAL EVIDENCE IN FAVOR OF THE FATRINSIC ORIGIN OF CANCER¹

BY WILLIAM B COLEY M D FACS New York
Professor [Chn 1 C sc Rese h C en h Medical School, M mo sal Hosp tal

BLLIEVE that a symposium such as we are holding today should be of very great value. The cancer problem is generally recognized as the most pressing as well as the most difficult problem that occupies the minds of the medical world at the present time. Physicians and surgeons and laboratory workers have given their best thought to the problem for generations and today owing to the steady and alarming increase in the death rate from cancer it is the chief topic for discussion in practically every important medical meeting.

Impatient with the slow progress of methcal men and cancer research societies in solving the problem of cancer the lasty are entering the lists as evidenced by the recent book on Cancer How It is Caused How It can be Prevented by J Ellis Barket of England — a book that has already aroused a great deal of attention. Barket has selected one theory from the great number that have been offered from time to time as explanatory of the origin of cancer.

peoples The theory is based upon the well known views of Sir Arbuthnot Lane who has long attributed many of the ills of the flesh to chronic intestinal stass or constigation. There is a certain base of truth in Lane is theory and whether constipation and improper diet are causative factors in caneer or not the campaign so vigorously started by Barker.

toxins from the intestinal tract due to habit ual constipation may tend to break down the resistance to cancer and thus be one of the links in the chain of etiological factors that

subject of my brief remarks Some Clinical Evidence in Favor of the Extrinsic Origin of Cancer I do not feel competent to render an expert opinion on the laboratory evidence

gotten by the laboratory men-which to my mind point strongly toward a possible mi crobic or extrinsic cause

I have been greatly interested in Doctor Nurum a seperiments and believe that he has made a very important contribution to the enology of cancer. I am very glad to see his paper receive such a sympathetic discussion. If by repeated moculations of pure cultures of a micro-organism obtained from an early stage of human breast cancer. he has been able to produce in animals, and in one instance in man tumors which the pathologists concede to be carcinoma, it seems to me that it requires no great stretch of imagination to entertain the possibility of some other closely alled micro organism producing other types

of malignant disease In 1891 Haviland brought out a later edition of his excellent book on The Geograph scal Distribution of Discase As early as 1868 he had read a paper upon this subject with special reference to cancer and had called attention to the fact that cancer was more prevalent in the low lying regions habitually flooded and less frequent in the higher locali ties especially when associated with lime stone formations In his publication of 1801 he gives the results of his continued studies on this subject including a careful survey of England and Wales and in addition presents numerous illustrative map The difference in the mortality of cancer in the different areas was very considerable. The low mortality districts occupied imilar if not almost identical areas among males and females and they re mained relatively approximately the same dur ing three decennial period. In some localitie

From the above experiment it seems fair to assume that repeated inoculations of a broth culture of the micrococcus i olated from human breast cancer occasioned the development of an enidermoid acanthoma in an old man who was a suitable subject for inoculation as indicated by his past history of spontaneous epitheliomata It should be clearly understood that the experimental cancer was produced in the normal skin of the groin at a site where skin cancer is not ob served clinically Moreover from the patient s past history it appears certain that he was a suitable subject for inoculation since hi immunity to skin circinoma must have been low

DISCUSSION

From the result of 6 years intensive bac teriological study it may be concluded that there is regularly present in both early hu man breast cancer and in the transplantable Crocker carcinoma No 11 and in tumor No 180 of the mouse the same micro organ m This micrococcus which belongs to the streptococcus group 1 also present in the metastatic growths in the lymph glands as well as in the cutaneous nodules in patients suffering from recurrent breast carmoma It has been isolated from primary breast car cinomata les than i contimeter in diameter and at a time so early in the evolution of the di ease as to exclude the probability of its being a secondary invader. It has all o been isolated in pure culture from a very early case of acute carcinoma in the human lactating breast where it was possible to determine the earliest instological lesions of breast cancer The micro organism is readily isolated in tissue ascitic fluid media overlaid with solid petrolatum or paraffin oil or still more readily in tall tubes of dextrose broth under partial anaerobiosi

When injected through the nipple ducts into the breast acini of female dogs two animals out of five surviving a sufficient length of time developed genuine carcinoma of the breast. In one animal the tumors regressed The second dog died with general ized carcinomatosis secondary to a huge pri mary breast cancer

resulted in the development of a typical smamous cell cancer

While the results of these inoculations may be interpreted differently and the explanation of a chronic non specific irritation brought forward the obvious fact cannot be denied by those entitled to an opinion that genuine cancer with metastases has been produced in the dog and primary cancer in man by re peated inoculations of pure cultures of the micro-organi m so constantly present in hu man breast carcinoma

Since it has been shown that cancer may be produced by the long-continued irritant action of bacteria in suitable subjects it is to be hoped that this work will stimulate others to investigate the micrococcus present in early human breast cancer which has quite generally been regarded as sterile

REFFRENCES

I DR tycss Sch az med Wheeh Reac 102 a Tee V

ş

50 fm S T tethe ntury ad a est canc h J R d l 10 J Sept mber Tserser II ku tsl h E κ ng α Can α db d r Ma C n l ng h d kr b d r h h J ρ

a works k ad I m awa k Pxp n tudy fth pth es fe m JCs Resear h 931 Se rip rso ale mm

troperitoneal glands the di ease proved fatal in 6 months. In this case it was impossible even with the aid of the microscope to differentiate a sarcoma tumns On the other hand the other and larger class of tumors the so called galls which correspond to the malignant tumors in man are known to be caused by a virus in serted by different types of insects I aget said that although the nature of the virus was unknown its properties were so constant that the specific characters of each insect are not more invariable than are those of the galls it has made to grow

tumor which the pathologists maintain is not of infectious origin

Again lymphosarcoma is still classed as a

it has made to grow

The remarkable work of Dr Ernest H

Smith head of the Bureau of Plant Pathology
Washington D C during the past 12 years
or more to my mind furnishes the weightiest
evidence of all in favor of the extrinsic origin
of cancer Winters on cancer have long been
free to point out the close analogy between
tumors in plants and animals and those in
human heings. If there is any close analogy
now that Doctor Smith has shown that it is
possible by the incuclation of a pure culture

other It an unknown micro organism can produce one of these conditions as admitted by all pathologists it seems not impossible that another micro-organism might produce the tumor of lymphosarcoma

A word about inflammatory breast cancer this type of cancer of the breast bears such a close resemblance to an inflammatory lesion that the boundary lesion that the bounda

cases J Collins Warren many years ago called attention to this type of tumor and pointed out that in some instances the tumor showed all the clinical signs of an inflammatiny process even to the matter of temperature

Another chincal fact that seems to me in point toward the extrin it origin of cancer is the analogy between tumors of plants and malignant tumors in man Paget beheved that the plant of th

to the innocent tumors in man and so far support Conheim's theory of the nrigin of cancer it seems only fair to admit the possibility of some other organism being the causative agent in human cancer

Paget was one of the first observers to point out the fact that In all specific diseases and in cancers more than in any parts are rendered apt to become the seat of disease after in jury. Chevassu in 1873 ande an experiment of great importance the operation of Bistournage which was practiced in France to destroy the function of the testea in animals by

small amount of pus from an infectious ah scess were made the otherwise harmless opera time caused severe local reaction and often endangered the life of the animal Again if we take a rabbit and strike a sharp blow upon the 1 - 1 - 1.

blow on the tibia an acute osteomyelitis will develop Gross in 1887 in his classic paper on Long bone Sarcoma stated that nearly 50

per cent showed a history of antecedent local injury In a paper on Injury as a Causative cancer was more than twice as frequent as in others. While no such careful surveys have been made in other countries the fact that cancer mortality vaties greatly in different localities has been noted in every countries especially in France and in the United States

United States the mortality varies consider ably in the different states being go in New England 74 sin Indiana and 87 yin California II cancer were due to an intrinsic cause it would be extremely difficult to explain the great variation in the geographical distribution of the disease

Then again cancer varies greatly not only in geographic a treas but among different races. Whether the reason for this is partly due to the locality itself or to the habits of the peoples or to variations in immunity is not clearly understood. Barker maintains that the reason why cancer is almost unknown.

never eat hot food To prove this it would be necessary to show that Anglo Indians who have lived in India for many years have the same cancer mortality that obtains in England and Barker claims this to be the case. He could be explained best by this theory. Havi land quotes freely from Sir James Pagets well known Morion lecture on Cancer and Cancerous Disease delivered at the Royal Collège of Surgeons on Jamary 11 1887 Paget was one of the greatest and wisest of English surgeons of any age and one of the most careful observers. It would be well for many one planning to fake up cancer research to read Paget's lecture of 1887. Many facts will be learmed that have been forgotten in the textbooks of today. More than 30 years be fore 1887 in a lecture on the same subject.

pecies much more highly organized

a negative certainly theirs might make us hopeless but I would not be so especially if workers so earnest and so skilful as they are will continue the search

No one who has had a large chincal expe-

Assuming Barker to be correct the most

individual to cancer and rendered the soil more favorable for the growth of the cancer

organism
When Haviland brought out his first paper

in 1868 little was known about germs In 1891 e came ongin

such aid I might cite many cases illustrating
this but one or two will suffice

Case x Tumor of testis in a young adult. The

ferentiate these conditions without the aid of the expert pathologist and not always with

e came ongin
tons in
disease

COSIS IL IS OILEI and

troperatoneal glands the disease proved fatal in 6 months. In this case it was impossible even with the aid of the microscope to differentiate a sarcoma

, ,

tumor which the pathologists maintain is not of infectious origin

Again himphosarcoma is still classed as a malignant tumor by most pathologists and yet there are not infrequently cases in which it is almost impossible to determine whether

other if an unknown micro organism can produce one of these conditions as admitted by all pathologi ts it seems not impossible that another micro organism might produce the tumor of lymphosarcoma

A word about inflammat my breast cancer this type of cancer of the breast bears such a close resemblance to an inflammatory lesion

cases J Collins Warren many year ago called attention to this type of tumor and pointed out that in some instances the tumor showed all the clinical signs of an inflammatory process even to the matter of temporature

Another clinical fact that seems to me to pent forward the extrinsic origin of cancer is the analogy between tumors of plants and malignant tumors in man Paget beheved that the xylomata or noody tumor often formed that the xylomata or noody tumor often formed that the xylomata or noody tumor often formed back of stepring cyes corre ponding dosely to the innocent tumors in man and so far to the innocent tumors in man and so far support Conheirs a theory of the origin of

tumors On the other hand the other and larger class of tumors the so called galls which correspond to the malignant tumors in man are known to be caused by a virus in man are known to be caused by a virus in serted by different types of insects Paget said that although the nature of the virus was unknown its properties were so constant that the specific characters of each insect are not more myanable than are those of the galls it has made to grow

The remarkable work of Dr Ernest H. Smuth head of the Bureau of Plant Pathology Washington D C during the past 1 years or more to my mund furnishe the weightest cridence of all in favor of the extrinsic origin of cancer. Writers on cancer have long been time to point out the close analogy between tumors in plants and animals and those in human beings. If there is any close analogy now that Dector Smith has shown that it is possible by the incoulation of a pure culture.

cancer it seems only fair to admit the po si belity of some other organism being the causa tive agent in human cancer

Paget was one of the first observers to point out the fact that I is all specific diseases and in cancers more than in any parts are rendered apt to become the seat of disease after in jury. Chevasu in 1873 and an experiment of great importance the operation of Bits tournage which was practiced in J rance to destroy the function of the testes in animals by

small amount of pus from an infectious abseess were made the otherwise harmless opera tion caused severe local reaction and often endangered the life of the animal. Again at we take a rabbit and strike a sharp blow upon the tiba nothing develops yet if we give him a small quantity of staphylococcus sureus by intravenous inoculation and then strike a bloom in his light of the property of the proFactor in Cancer 1 I reviewed orn cases of sarcoma that had come under my personal observation with special reference to the question of injury as a causative factor In 3 per cent of the cases there was a distinct history of antecedent injury. This series of cases included both sarcoma of the bone and the soft parts If the study had been confined to sarcoma of the bone particularly the long bones the percentage of trauma would have been still higher A recent study of 50 cases of giant cell sarcoma of the long bones reveals a history of antecedent injury in 56 per cent of the cases Taking sarcoma of the bones in general I believe that not far from 40 per cent of the cases will show some local injury previous to the development of the tumor Williams in his report on one hundred cases of breast cancer stated that 44 6 per cent gave a history of distinct antecedent trauma. If we assume an extransic cause of cancer the explanation is easy. The morbid substance view of laget was that the unknown micro organism is present in the blood and has

I collected 38 cases of malignant disease in which an attack of crysipelas had occurred In 23 of these cases the attack had occurred accidentally and in 15 as a result of inocula tion. Seventeen cases were carcinoma 17 were

elas In the remaining 13 cases more or less temporary improvement was noted. Of the 17 cases of sarcoma y or 41 per cent were well from 1 to 7) cars after the attack. In 1905 in the American Journal of the Medical Sciences I published five additional cases in which an

report recorded from the literature 69 cases of accidental ery supelas associated with malig nant tumors, 27 of these cases were sarcoma and 38 carcinoma. In the sarcoma group the tumor entirely disappeared in 10 cases and

soil suitable for the growth of the organism which at once obtains a foothold and goes on to develop a malignant tumor

The curative influence of acidental erysipelas inscroluls was referred to at some length in a very important monograph entitled Elude Climpius sur nifluences curative de l'Dripfel dans la Syphilis by Charles Mauriac published in l'ins in 1873 nearly 10 years before of eryspelas While I beneve that the final a few cases recorded in which an attack of accidental eryspelas has occurred in the

Treatment of Maiignant 1 unior by P. Inoculations of the Living Germ of Erysipelas

ASE 9 April d My Am J bl Sc 3 J My is mphosarcoma is due to an infection that tuberculosis is due to an infection if the tumors of known infectious origin such

as Hodgkin's disease tuberculosis and po's bly Jymphosarcoma show very marked effects from accidental cryspelas it seems fair to assume the possibility of infectious origin of tumors such as carcinoma and other types of sarcoma which show almost identical results from the erispical stories.

Contagion There are many examples of so called cancer houses reported in the medical literature in which several cases of cancer have developed among the occupants with wealily no history of blood relation. It is difficult to explain these cases entirely on the ground of connedence. The chief argument against the theory of cancer bring a contagonation that there is no history of a surgeon

precisely the same argument that was brought up against the theory that tuberculosis was a contagious disease. The statement has frequently been made that during a period of 15 years no doctor or nurse or attendant connected with the Brompton Hospital for Connected with the Brompton Hospital for Connected tuberculosis. We now know that tuberculosis is not only a germ disease but that it is definitely contagious particularly an animals and moderately so in human beings.

Heredity The numerous cases in which saveral members of a family have developed tuberculosis were formerly explained on the ground of hereditary transmission we now know that not the tubercle bacilli but simply tissues with less than normal resistance when criposed to the germ were inherited

In regard to the question of heredity in cancer at present there is a wide divergence of on non-com-

cancer can fail to notice the fact that in many families several of the members have died of cancer. I remember one family in which the lather had a round cell surcoma of the pariotid gland and two daughters dued of cancer of the breast. I know of another family in which there sisters died of cancer of the breast. I had another patient with a cancer of the

breast slowly progressive which did not prove fatal for 7 years. During almost the entire time the tumor was ulcerated and required daily dressings these dressings were applied by the patients only daughter Shorth atter the mothers death the drughter came down with cancer of the breast which proved fatal in less than 2 verts.

The well known experiments of Maud Slyc of Chicago now covering 40 000 cases in which careful autopsies have been performed prove beyond any doubt that cancer in mice is hereditary that by inbreeding certain strains of mice in which cancer is more prev alent than in the ordinary strain it is possible to produce a strain in which every ani mal will die of cancer On the other hand the objection is raised that there is no analogy between cancer in mice and cincer in human beings I do not think we can altogether accept this For the last 15 years or more most of the cancer re carch laboratories of the world have been conducting their re earches largely upon mice These results would be of little value in the study of cancer except ne assume that there is some analogy between cancer in mice and cancer in human beings It is interesting to know that Maud Slive in her experiments found all the different strains which develop a high mortality of cancer representing all the different types of cancer 1 e some of the mice died of ordinary

ring in plants as has already been demon strated by Smith. The latter has found that by verying the site and depth of the inocula tion he can produce different types of malig mant tumors in plants. Of course these risults might be explained in another way e.g. he reditary train mission of unusually low resisting power in the tissues to a group of micro organisms which produced each its different type of tumor.

If we assume the extrusic cru c of cancer then it is easy to understand why the number of cancer cases varies in different geographical uses. It is easy to expluin why some races have little or no cancer and others living in the same localities but with entirely different

Factor in Cancer 1 I reviewed pop cases of saccome that had come under my personal observation with special reference to the question of injury as a causative factor. In 23 per cent of the cases there was a distinct history of antecedant injury. This series of cases included both sarcoma of the bone and the soft parts. If the study had been confined to sarcom of the bone printicularly the long

the cases Taking sarcoma of the bones in general I believe that not far from 40 per cent of the cases will show some local injury pre your to the development of the tumor Mc Williams in his report on one hundred cases of breast cancer stated that 44 6 per cent gave a history of distinct intecedent traums. If we assume an extensic cause of cancer the explanation is easy. The morbid substance tien of Paget was that the unknown micro organism i present in the blood and has caused no symptoms and has done no harm and that the local injury by lowering the local resistance of the tissues has produced soil suitable for the growth of the organism which at once obtains a foothold and goes on to develop a malifinant tumor

dans to Syphius by C 1 au a pullished in Paris in 1873 nearly 10 years before

clas in 1880 we find a number of observations on record in the medical literature of many types of malignant tumors disappearing dumg an attack of accidental crysspelas. In one of my carliest papers on the subject. The Treatment of Malignant Tumors by, Repeated Inoculations of the Luving Germ of Eryspelas. 1 I collected 38 cases of malignant disease in which an attack of ensipelas had occurred In 3 of these cases the attack had occurred accidentally and in 15 as a result of inocula tion. Seventeen cases were carcinoma 17 were sarcoma and in 4 the type was doubtful. Of

elas In the remaining 13 cases more or less temporary improvement was noted of the 17 cases of sarcoma 7 or 41 per cent were well from 1 to 7 years after the attack. In 1906 in the American Journal of the Vedical Sciences I published five additional cases in which an

nant tumors 27 of these cases were sarcoma and 38 carcinoma. In the sarcoma group the tumor entirely disappeared in 10 cases and

accidental erysipelas has occurred in the course of lymphosarcoma or Hodgkin b disease it is known that the mixed toxins of erysipelas and bacillus prodigiosus have a very marked

for my early work in malignant tumors was a four times recurrent round cell sarcoma of the neck which had become quite inoperable the tumor entirely disappeared during an at

lymphosarcoma is due to an infection know that tuberculosis 1 due to an infection If the tumors of known infectious origin such

A Sg g ApidMy Am IMSc Sos My

covered the micro-organism which is the pos sible cause of cancer

In closing I would strongly urge more in tensive research along these lines. Why is it that in so many of the great cancer research institutions of the world this question of the parasitic origin of cancer receives practically no attention today? It is because no young man entering the field of cancer re earch feels that he can afford to run the risk of an un sympathetic and often antagonistic attitude on the part of the professors of pathology who repeatedly tell him that the whole matter has

Academy of Medicine (April 1924) did a

- make the tre many out cancer

today but there is one thing that we do know and that is that it is not of germ origin situation recalls to our minds another chapter in medical progress that has probably been

prove to any fair minded man of average in telligence that puerperal fever which was causing frightful mortality at that time was due to some unknown virus which was carried to the patient by the attending physician or the midwite. Were the leaders of the medical profession convinced by the evidence presented by Holmes? No far from it Nine years later two of the most distinguished professors of obstetrics in America ridiculed Holmes idea as sophomore vaporage One of them Professor Hodge stated as follows

The result of the whole discussion will I tru t serve not only to exalt your views of the value and dignity of our profession but to tio mal of ho ---

of gestation and parturation the minister of evil that you can ever convey in any possible manner a hornble virus so destructive in its effects and so mysterious in its operations as that attributed to puerperal fever And Pro fessor Meigs expressed himself as follows

I prefer to attribute them to accident or Providence of which I can form a conception rather than to a contagion of which I cannot form any clear idea at least as to this par tıcular malady

Holmes in language as impassioned and forceful as any found in medical literature replied in words it would be well to inscribe 45 a motto in every cancer research institution

Where facts are numerous and unquestion able and unequivocal in their significance theor, must follow them as it best may keep ing time with their step and not go before them marching to the sound of its own drum

and trumpet

Holmes finally gave up the battle as hopeless and turned to literature and wrote The Autocrat of the Breakfast Table His keen sense of humor saved him from the unhappy fate of Semmell weiss a few years later The latter without a previous knowledge of Holmes observations began a study of the same problem in 1844 when he became assistant professor of ob stetrics at the University of Vienna The mortality from puerperal fever at the Univer sity of Vienna at this time was 16 per cent Klein who held the chair of obstetrics at the University of Vienna led a violent opposi tion against Semmellweiss ideas and his ma lignant jealousy forced Semmellweiss from Vienna He obtained a position at Perth where the mortality from puerperal disease was nearly as high as that in Vienna and

side he was so slow in convincing the profes sion that his mind was unable to stand the strain of the opposition and he was sent to an insane asylum in 1869 dying shortly after of an in fected wound caused by the very disease which he had spent his life and fortune to combat

I urge once more that we look upon the theory of a microbic cause of cancer not as a closed chapter but one that deserves sympa thetic study Every encouragement should be given to workers in this field. The parasitic theory of cancer is the only one that offers any real hope of controlling the disease or of great ly lessening its growing mortality

habits of living and diet have many cases of cancer. If we assume an extrinsic cause of the disease, it is easy to understand that this organism may be very widely distributed over the world that everybody is exposed to it and yet that it requires a soil peculiarly fitted for it to obtain a firm hold in mrn and produce a cancer. I do not believe that the question of a orable soil has ever received due recogni

cancer Cancer

had the members of its staff devote their entire time

search I and 1919 by two of these workers Bullock and Cramer In it they state that very many wounds especially those received on the Western I rout were injected with the bacillu of Welch but only a very small per centag of those infected wounds developed gas gangerne. The same thing was found to be true in animals of some hundred mice and guicea pigs injected with the bactern of teams only a very small percentage contracted the disease. It was found however that does of 25 milligrams of calcium chlor ide when injected subcutaneously into mice to 10-15 gram weight together with a su pen

the bacteria mainly by ly is and partly also by phagocytosis and this defensive mechan ism is so efficient as to render these bacteria non pathogenic when injected by themselves If a small dose of soluble ionisable calcium salt is injected together with the bacteria or their sports the specific di case is elected in a very unifient form. In explaining this action they do not believe that the calcium salts possesses some power to increase the virulence of the organism but rather that they effect a local hreaking down of the defensive mechanism against the hacteria of ass gangree and tetanus. This new pheno-

menon they characterize as kataphylaxis. These experiments I believe have a very important bearing on the question of cancer and go far toward explaining how it might happen that a great many people—perhaps the majority—could be exposed to a micro-

early dlance belief

Ballance a research worker almost from histudent days who later hecame one of the leading surgeons of England told me a year ago that he still believed more firmly than ever that cancer was due to some extrinsic cause Shattock who later became professor

due to some extrinsic cause. RUNCOM PROFESSOR OF SURGED pathology at the University of Naples has written one of the most exhaustive treatises on cancer to be found in any language covering more than two thousand quage covering more than two thousand quage great surgical and pathological experience is that cancer 12 undoubtedly an infectious disease.

facts is that they are old and that many of them were discovered long ago. The same objection might be ruised to the law of gravita tion, which was discovered many years ago but which is as true today as it was in the days

of Newton

The main argument against the theory of
the extrinsic origin of cancer is that no one has
discovered the germ. This is no more an argument that the germ does not exist than that

their cause has not been discovered should be some excuse for our not having yet dis-



number 28 Most of these have appeared since the publication of Steins article at though a number were published prior to Steins report but not included. These with the case here reported bring the total number of cases for discussion up to 29.1

---- 1 1

CASE RISTORY

Mr M aged 28 admitted to U S Veterans Hospital No 6 Maywood Illinoi August 3 1922

patient complained of frequency of urination of a

feeling a se re soreness throughout the lower backpain in the abdomen and headache after which

pyelitis receiving weekly irrigations of the kidney

peared to be as large as a small grapefru t. The surf ce was slightly irregular no tenderness on pressure

Cvstose pie e animat on of bladder and ureteral orifices w a negative Not disculty or obstru tion of ureters was found o catherizat on there was a prompt fl v of lear u ne f ore each a de Pe log ms. The right shadon graph catheter at a

poi t about at the le el of the brim of the pelsis
p ss-s outward and upw rd and stops at a level
with the est of the ilium. The l ft shadowgraph

pr is a ara the median

Since the pape of best betway by had no ack by Lake se Do roma blass, of P has C the published assesses ally re who hild we looked Thinch go the both number if p by had area facel days S see on plans



Fig Roentgenogram oft n sh ws c lyces pointing g and median lin

line with some dilatation and clubbing. The left pyelogram (Fig 1) was triangular in outline and failed to show the minor calyces (incomplete filling?)

It is generally believed that renal malformations occur more often in the male than in the female an opinion corroborated by the reported cases. In Stein's sense 47 cases occurred in males and only 17 were reported in females. In the sense given here, 18 cases occurred in males on temples and in 5 the services on the males.

SIDE INVOLVED

Whether one side is involved more fre

on the left and in 3 cases the side was not stated. As an aid in recognizing this condition the question of whether the lesion is right sided or left sided is of little moment

AGE

From a review of the table of ages it would appear that patients suffering with this

UNILATERAL FUSED KIDNEY! BY HERMAN L KRETSCHWER M D FACS CHICAGO

REVIEW of statistics dealing with the frequency of occurrence of various 1 congenital anomalies of the genito urmary tract shows a wide discrepancy in the figures It was believed formerly that con genital anomalies of the urogenital tract were uncommon This was due no doubt to the fact that these cases were infrequently report. ed and when reported were almost always autopsy cases With the increasingly larger number of autopsies that are performed every year it stands to reason that many of the various anomalies of the genito urinary tract will be noted with greater frequency and clinical cases will increase in frequency be cause of the decided advances in prological diagnosis Since many men are working in this particular field today the natural out come will be that more and more cases will be found and reported in which event the present available figures in regard to the occurrence of the various congenital anomalies of the genito urinary system will undergo revision - 6 - 61 62 should be used in describing cases belonging to this group

A careful differentiation should be made

mentary condition without blastema forma tion and sprouting while the opposite bud has gone on to the formation of a single kidney

plete reduplication of the ureters of such a single lidney should occur with congenital absence of the opposite kidney both ureters would empty on the corresponding side of the bladder. The trigone on the opposite side would show no trace of a ureteral ordice or only a bland treess.

Inumlateral fused kidney the fusion may be so complete that the resulting compound organ closely resembles in shape and general appearance a single kidney with complete

one lused kidney other than hor e shoe shape.
In 15 908 autopsies Boody found one case of solitary fused kidney in 500 autopsies the only authority to report such a ratio. Naumann in a study of renal anomalies found fixed distinct of the solitary of the

eparate

٠

kidneys are present each with a separate

The nomenclature of this type of resion na

s

4 F NITALIA

was due to the stone rather than to the museu Lidnet BLOOD

This ymptom was reported by three authors Blood came from the urethra (Bie berbach) ha maturia during the attacks of pain (Hyman) hamaturia (Lund)

PALPABLE TUMOR

The presence of a pulpable tumor was renoted by Bissell Bugbes. Boody Dennis Krman Lo rel v. here-chimer and Wilcov Upon the first examination it may be difficult to extaolist the nature of the palpable mass is re-e in this group of cases the problem of unfirential abdiminal disgnoss comes up Instead of a nalpable abdominal tumor the profession of a mass into the vagna has been

DIAGNOSIS

In mo teases the diagnoss from the routine physical examination is often fraucht with much difficulty and hence not made. But the presente of this condition can be established by means of the shadow graph catheters and quantizably. The unterest practically always terrunate normally in the blidder thereore plain cystoscopy is of no help. The roent

cases in which the renal ma s is found in the

to an unpleasant stuation. In one case for entire mass was removed and the sate of ded of anuna. In females, solitary fused hidm; may be a causative factor of dystocia.

LASCULARIZATION

The vascular supply of fused kidney presents many abnormantes as evidenced in the cases reported in which a careful study of the point was made.

mens case the move supply come to a and and right common line. With lim hotel the following. 'A single artery from the acts going to the right kidney. The list kidney had fow main arteries one upper ans ing from the aorts. The lower one was broken off and its exact origin was not determined but probably came from one of three outcomes the right or left common line or the interior mesonition. Meyer stated that all arteries that had not been cut arose from the right common flust. And in Stewart and Lodge of a three were four separate was els springing from the acrit.

EMBRICIOUS OF BUSED KIDNEY

According to Huntington, the possibility for the ocurrence of this horn of ong wall satistion to at once suggested by the topic graphical conditions in the early embryoned stape of small development. The principal stude of the two renal bads in the early stapes when the terminal sprouts have become in bedded in the pecials of renal blagtens and the two organs are place i closely sale by sinder in the maniferent pre activ mesoderinal tissue on the mesal aspect of the caudal poles of the meson through the property of the meson poles.

The main element of apposition and provimity which allows the primary opportunity andy for the development of the fundamentations in general is further influenced in some d and by the typical condition which obtain during the migration of the ladner.

anomaly do not attain a very old age. The oldest patient reported died at the age of 65 of pulmonary tuberculosis (Boods) Two

TABLE OF AGES

	Cests
Unde r year	
1 to 10 y 3rs	3
tt ao s ans	1
to 30 y ars	ň
31 to 40 years	
41 to 50 years	· ·
SI to bo Vr. IN	;
or to 70 y	1
Age not tated	i
Total	***

SOURCE OF CASES REPORTED

In this series of 29 cases I less than one half, were clinical cases whereas the remain der or 17 were autopsy reports. This would seem to argue against the statement made above as regards the clinical recognition of these cases However an analysis of this senes shows that of these 12 cases 11 were reported in the last 5 years

CO EXISTING RENAL PATHOLOGY

Notes on the pathology found in these kidneys whether sutopsied or chinical are very interesting. Information on this point was available in 11 cases. Aephritis in one form or another was the lesson most frequently recorded The following types were reported by five authors Diffuse subacute nephritis (Day) parenchymatous degeneration (Den ms) chrome diffuse nephritis (Felty) chrome interstitial nephritis (Gruner and Fraser) nephrius and arteriosclerosis (Carrieu and De Rouville) The next most frequently found lesion was stone which was reported in 3 cases (Hyman Lund and Rathbun) In 2 cases pyelitis was present or had been recently present (Lowsley Lingery and Clarke and Aretschmer) In one case the records show that cysts were present throughout the entire kidney In the remaining 13 cases no mention was made of other pathological changes In 4 cases other congenital malformations were found besides the fused kidney In 2 cases the presence of a bifid pelvis was mentioned

(Meyer Wilcox) Rathbun's case is interesting in that a double pelvis and double ureter were present which fused above the bladder so that only two ureteral openings were found upon cystoscopic examination A case of abnormal insertion of one ureter terminating in the prostatic urethra is mentioned by Carneu and De Rouville

SURGICAL OPERATIONS

In the series given here surgical operations were reported by Bissell Bugbee Dennis Hyman Lund and Lowsley King ry and Clarke In 3 cases operations were performed for the relief of stone (Hyman Lund and Rathbun) In the remainder of the cases fixa tion operations were done In I case (Stewart) a left inguinal colostomy was done for relief of obstruction of the bowel due to carcinoma of the colon. Appendectomy was done in 3 cases (Bieberbach Bissell and Kretschmer)

SYMPTOMS AND SIGNS

The symptoms may be divided into three groups (1) those due to solitary fused hidney () to co existing renal pathology (3) to disease elsewhere

SYMPTOMS

Unfortunately many of the autopsy cases are very briefly reported and no mention is made of the chinical side of the case. In the cases that come to autopsy early in life symptoms due to fused kidney were probably absent and for this reason were not m attored

Pain is one of the most frequently mentioned symptoms It may be due to several factors the presence of the large renal mass or the presence of co-custing lesions in the kidney such as stone or pychtis. On account of van ous descriptive terms being used in refe ence to the pain the type is not clearly defined. Thus in this series of cases one finds the following Pain in the lower quadrant (Bie berbach) discomfort in the right pelvic region and pain in the right 1 h (Rissell) dragging

the stone remo ed

KIDD Solit rv k dney with do ble eters no m liy

hæmatu a. O bd m lpalp t ma u d

For Law 6 May cg aged y ar Cue fd thu ke wap do by premo A rr gula m as food by premo A rr gula m as food by premo B aged y ar Cue fd thu function for the fact of
B ssell Female aged 2 Fom aly childhood

pel ic brim.
Il Guzz I emale aged 31 Ital an married had f ur

tua e ne n mal

i

UTERINE MYOMATA AND PREGNANCY WITH SPECIAL RETERENCE TO TUMOR NECROSIS¹

BY P BROOKE BLAND MD PHILADELPHIA

White utenne myomata especially those of the submucous type and those located in such a way as to amount of the submucous type and those located in such a way as to amount of the submuch
Child states While it is true that many women grow myomata and babies inclis criminately and in large numbers as a general rule these tumors promote sterility and retard fertility

m

in 3 617 cases found 3r 5 per cent sterile
Giles in his outstanding work on sterility

in nomen states that myomats in the early years of marined life do not play an important role in the etuology of stenlity. The writer to whom we have referred cites 26s married patients—some married for not more than 3 years—in whom myomata were found in only one patient of every twenty but in patients married for more than 10 years these growths were present in one of every three.

From carefully compiled figures Cules further finds that up to the age of 30 the relation between myomata and sterulty is quite unimportant since these tumors were found in only two of every one hundred sterile patients. After the age of 40 the relation is infinitely more string and growths were found in two cases out of every five

The proportion of married women suffering

thors—661 or 30 8 per cent sterile. In 556 personal cases Giles found that 305 or 71 per cent had borne children and that 161 or 9 per cent were sterile. Adding the personal cases observed by Giles to the num

ones oraces that myomata must have some enlogical relationship to sterlity, but he is convinced that the influence of the growths upon conception is not very marked. This author also claims that there is a converse aspect of the subject that calls for consideration namely that myomata may not necessarily be the cause of sterlity, but the result of sterlity or in other words the result of the failure of the uterus to perform one of its assemed functions.

Giles endeavors to support this contention by citing the histories of \$56 married patients of whom 60 per cent had never been pregnant although at least 25 per cent of these women had been married for more than 5 years and 40 per cent for more than 10 years. Furthermore the great majority had been marned a long time before the fibroids developed and there were but few patients in whom the history of fibroids went back more than from 3 to 5 years Giles claims therefore that these patients were not sterile because they had myomata but that they developed the tu mors because they did not conceive. This hypothesis has been considered and at least partially accepted by some but by most writers it is looked upon with skepticism Personally this fanciful theory does not make an impelling appeal

Irrespective of race and creed in this country if not in most enlightened countries—I might say in most of the too enlightened countries—and even in the American born regardless of parentage there has been for a decade or two or longer a gradual dimunution in multiple offspring Large families are the

٠

alth gh they em rged trally empted 1 th no mal

n mal posts n Two re last nes and two renal can wer prese t.

REFERENCES
BREEZERACH Ur 1 & C tan R v 9 4 Rr 1 N

In 743 79
Day Suff Cynec & Obst 19 4 Erwil Jan
Drivis Suff Cynec & Obst 19 4 Erwil Jan
Drivis Suff Suff Am M As 19 4 Erz
Fetter J Und 9 8 E 4 E
Groupe and Faste Bull R 3 E t H sp M nire?
19 1 174

a March

8

Will the As t. Reco up in 9 t xviii 10) t 7 Wrygenidz Johns Hopki Hosp B ll 1909 uz 2 9 (153) had one miscarringe some had several ranging from 2 to 6 but these were rare. As to the term of gestation abortion occurred at any time from the first to the seventh month but the mijority took place between the second and fourth month

One hundred and seven of 130 miscarriages occurred between the first and fourth month 71 in the fifth month 71 in the sixth month and 51 in the seventh month In 110 the month of interruption was not mentioned. These figures show that one hilf of all the patients had never conceived and excluding the 307 single woman mecessarily sterile there were still 277 out of a total number of \$4\$ who though married had never conceived. Aelly and Cullen in view of the frequent association of disease of the appendages were unable to determine whether the myomata or the accomprunying disease of the tubes and ovaries were responsible for the sternity.

INFLUENCE OF MIGMATA ON PREGNANCY

It seems logical to conclude that myoma tous uters so often associated with manifold change body

a verv

spring. The majority of patients suffering with these growths as we have already in dicated are sterile but conception while exceptional may occur. In Kelly and Cullens series over 50 per cent of the marined women did not conceive. However sterilty is not the rule. A certain number of patients conceive the use of conception does occur the soil still its unsuited for retention of the embryo and interruption of the gestation is likely to occur. In a study of 168 specimens we found 6 complicated by intra uterine gestation and 2 by pregnancy in the fallopian tube

Sepiades claims that pregnance complicating myomata often results in abortion and requires surgical interference in from 30 to 50 per cent of cases. However in 8 cases under personal observation within the past to years we have observed only one instance of interruption. In this patient abortion followed abdominal myomectomy. Suprades believes that not more than 50 per cent of myomatous uten will carry a pregnancy to full terms uten will carry a pregnancy to full term.

The figures cited above show that uterine myomata predispoe not only to steinlity but to interruption of gestation as well. This to interruption of gestation as well. This could be kelly and Cullen Several factors per haps are responsible for the interruptions of gestation. Uterine contractions set up by the tumor itself are probably influential in some cases. The changes in the endometrium in doubt are mostly responsible and harmor hapse occurring about the gestation sac favors premature separation of the placenta and subsequent abortion.

INFLUENCE OF MYOMATA ON LABOR

As a complication of labor at term myo mata are not frequently encountered Pinard according to Macfarlane in 13 915 consecutive labors found only 0 6 per cent complicated by these growths

A subserous tumor u ually does not interfere with parturition but a growth in the uterine wall may cause malposition of the fetus or placenta and produce dystocia during labor. A neoplasm impacted in the pelvis may wholly prevent spontaneous expulsion of the fetus, but even a tumor low in the pelvis may rise during uterine contractions and allow fetal exit. A large tumor or multiple tumors may retard the progress of labor by interfering with uterine contractions. Postpartum/hemor rhage may also be favored by growths of this character.

However in myomata complicating gesta toon a certain number of both maternal and letal deaths occur. Lafour in 300 cases complicating pregnancy in which delivery occurred through the vagunal canal found the maternal mortality 6 per cent. In 0 per cent of the cases forceps were used with 8 maternal and 13 infantle deaths.

DADIES Crossen in 84 cases found that if the mothers were allowed to go to term 64 per cent delivered themselves without as istance and 36 per cent required forceps delivery. Veit had a maternal mortality of 33 per cent and a similar mortality of the children. In 87

exception rather than the rule. The gospel of personal comfort is more assiduously practiced than the rearing of large families. All in all especially with the well to do and middle classes. Jamilies with three children and less artifacted in the children and less artifacted in the children and more One child two child and three children and more One child two child and three child sternity especially the first is increasing because it has been self hily so desired and so designed. A family of three children has often been regarded as the ideal but even this ideal—if there still cut is an ideal as to the family numerically—is not regarded with the same degree of Livor as it was a decade areo.

How far the practice of contraception and the limitation of offspring will go one cannot say. With the diminution in multiple off spring it would seem logical and justifiable to assume that their should be n corresponding increase in uterine myomata while there

has been noted

nted by of myo mon and

detanging the endometrium are influential in producing sterility to say nothing of the concomitant changes in the fallopian tubes which act as additional barriers to conception. Tubal changes of sufficient gravity to prohibit conception are found associated with a precent of my official products of the content of tasks are variously affected in approximately, so per cent of tasks.

In 934 uterine myomata studied by Kelly and Cullen the tubes were found normal in

PELATION OF MYOMATA TO FERTILITY

Uterine myomata not only inhibit conception but they are influential in diminishing

fertility as well

In 386 cases of uterine myomata Giles found a one-child sternlity in 274 per cent. This is much greater than obtains ordinarily Fifty-one and eight tenths per cent of his

patients had two pregnancies and ,07 per

cent had had not more than three pregnancies T B Phillips in his clinic in Amsterdam found that the average number of children born to women who conceived was 321 per cent. Submicrous and interstitual tumors are most commonly responsible for sternlity. We observed a patient with a perdunculated submicrous tumor blocking the cervical canal who was sterile for several years. Removal of the growth was followed by conception and a full term labor. Subserous tumors do not as rule. Indeer fetthis nor unless they be the seat of degeneration or complicated other was are they filely to cause abortion.

In 1 904 myomata Scipiades found \$14
or 755 per cent occurring in married women
and 244 or 209 per cent of these patient
were sterile 64 or 45 per cent were not
married so the relative frequency of myomata
in the married and unmarried this author
befores is about three to one As regards
productivity the 814 married women had
1805 children and 441 abortions. The number
of children born to each mother was 2 5 and
the number of abortions was 0 55 or excluding
the miliparou 321 children and 68 abort
tions

Kelly and Cullen in 1 149 cases found \$42 married nomen and 307 single. All but, of the married nomen wedded before the age of 40 Of the total number 584 (more than 50 per

marti u (10) will too nere single. The length of married life of the 200 sterile patients was

| Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast | Cast |

Dai of obtainable

In addition to the 72 women who had mis

ered of rs who iso mis patients

s who had miscarried The majority of these

Lockyer says the microscopic features ob served in necrotic fibroids is practically the same irrespective of the color which the its sue may assume The ordinary microscopic changes observed in hyaline degeneration are usually found coincident and these are looked This or some other cause may produce me chantcal obstruction of the nutrient vessels and provoke necrosis. This theory would seem to have some bearing ethologically since a uterus may contain multiple tumors yet a single growth or only two or at the most three

- Irregular and scanty nuclear staining
- Granular and hyaline alteration
 Fatty material running in a line of the
- original direction of the muscle fibers
- 4 Fat within wandering phagocytes both outside and inside the lymphocytes
- 5 Signs of vascular degeneration engage ment thrombosis and fibrin deposited within the vessels

ETIOLOGY

Many hypotheses are advanced as to the

the hæmolytic influence of the lipoids. When the lipoids are greatly increased hæmolysis occurs and oxyhæmoglobin can be demon

of him within the vessels and more or less degeneration of the blood cells. The theory of Murray has received quite general approbation though some authors notably Ahlstrom deny that the lipoids are increased. He records three cases in which they were decreased or wholh absent.

Some writers attribute the cause of red necrosis as we have already indicated to the scanty blood supply of myomata with throm bo is and homorrhage

Lockyer after a careful study of Murray s

augurated by the contractions of the uterus which normally occur during pregnane;

Obstruction of the nutrient vessels from mechanical pressure of the growth against the

recorded

Vautrin according to Schiller believes that rotation of myomata in their capsular bed resulting in disturbance in continuity may be influential Other writers look upon the toxins of pregnancy as causative Some regard the trouble as due to increased coagulability of the blood and still others assign endarterial changes as provocative Except in syphilitic subjects endarteritis in the childbearing woman is rare. This would seem quite suf ficient to exclude endartentis as a cause Finally the elaboration of a proteolytic fer ment must be kept in mind as possibly in fluential From this array of theories not one of which has been universally accepted we are forced to admit that the cause of the trouble is still clouded in speculation though the theory of Murray has received wider acceptance than any yet mentioned

SYMPTOMS

The symptoms of necrotic myomata com plicating pregnancy are variable. In most cases they are quite active and of sufficient intensity to enforce rest and recumbency Pain with localized tenderness is the most distressing symptom as well as the most con stant and prominent

In the first two cases recorded in this series the other of pain was most abrupt and most violent resembling somewhat an acute appendictus. Indeed in these two cases be cause of the pain being localized in the region of McBurney's point and associated with distinct circumscribed tenderness and a palpable mass a tentative diagnosis of acute appendi

Here it is well to consider the relation of bacterial invasion-infection-to red necrosi It is a common observation that in submucous myomata necrosis is almost invariably fol lowed by infection and sepsis Red necrosis on the other hand complicated by pregnancy or occurring independently of gestation is an a eptic proce s and infection rarely if ever occurs

Schiller describes it as an aseptic necrobiotic change with hamoly is and autolysis of tissue Red necrosis while it most frequently occurs as a complication of pregnancy is sometimes observed though rarely in the non pregnant As a complication independent of pregnance the process is not usually so pronounced nor complete

ne

degeneration may eventuate in complete re covery with restoration of tribue vitality though there is abundant proof both clinically and pathologically that the process may con tinue in certain instances to liquelaction and total necrosis

In none of our cases did complete necrosi occur. In three of our patients active 3mp toms indicating acute degeneration were present but the symptoms subsided under simple expectant treatment. In these patients exparein section with myomectomy or his teromyomectoriy was performed at term

ostensiony receiv to prolong life and prevent continuation of the necrotic process. The neoplastic ti sue retuned the grayish hue and wa more or less dry and semilifele s. In respect to the term necrobio is it may be stated that there i clinical evidence to show that in some of the tumors the active symptoms subsided but this does not necessarily imply that to ue vitabity has been wholly restored Restora tion is evidently only partial but sufficient to

hinder further degeneration. Under the cir. cumstances it does not seem to be proper to use necrobiosis synonymously with true necro sis It should be looked upon simply as a feature or stage of the degeneration continu ing to actual death in certain cases and stop pang rather short of death in others

HISTOLOGY

The extent of degeneration is determined by the appearance of the cell nuclei and by the reaction of the cytopla m when submitted to certain stains Histologically red necrosis has no distinguishing features and it cannot therefore be differentiated microsconically from ordinary necrosis of the tumor cell The nuclei stain only moderately or do not take any stain at all. They seem to lose their expacits for taking up the stain and because of this faint response to staining they have been described as nuclear ghosts

20,00 15 f granu

present. The muscle cells seem to resist the necrotic process longer and their outline often remain well preserved

In sections taken from the most active an l advanced areas of the dr case the cells react to staining feebly if at all In these se tions the outline of cells may be lost and nothin, - who me of dit t may be

Round cett minitation 1 1 1 y - and this feature empha izes the non infectious nature of the trouble Weigert's sum di closes filtrin in the smaller ves the but in no place is there any proliferation of the se sel I the hout the sec

interrating to

In a series of slides illustrating necrosis it would be impo sible then to differentiate a specimen of red degen ration from a vellow or white type In short red necross does not represent a pecial histological form

Lockjer says the microscopic features ob served in necrotic fibrads is practically the same irrespective of the color which the is sue may assume. The ordinary microscopic changes observed in hyaline degeneration are usually found councident and these are looked upon as antecedents of red degeneration.

To summarize the histological features they appear as pointed out by Lockyer as follows

- I Irregular and scanty nuclear staining Granular and byaline alteration
- Granular and byaline alteration
 Fatty material running in a line of the
- original direction of the muscle fibers

 4 Fat within wandering phagocytes both
- outside and inside the lymphocytes
 5 Signs of vascular degeneration engorge
- ment thrombosis and fibrin deposited within the vessels

FIGUROR

Many hypotheses are advanced as to the cause of red degeneration. Owing to the out standing work of Murray most observers be

ray claims that the hemolytic action of the inpods is restrained by the blood plasma or in other words that the blood plasma inhibits the hemolytic influence of the lipods. When the lipods are greatly increased hemolysis occurs and oxyhemoglobin can be demon

of hbm within the vessels and more or less degeneration of the blood cells. The theory of Murray has received quite general approbation though some authors notably Ahlstrom deny that the lipuds are increased. He records three cases in which they were decreased or wholly absent.

Some writers attribute the cause of red necrosis as we have already indicated to the scanty blood supply of myomata with throm

boss is the predominant change. Other observers believe that the necrotic process is in augurated by the contractions of the uterus which normally occur during pregnancy

This or some other eause may produce me channeal obstruction of the nutrient vessels and provoke necrosis. This theory would seem to have some bearing etiologically since a uterus may contain multiple tumors yet a single growth or only two or at the most three

Obstruction of the nutrient vessels from the bony pelvis or abdominal wall appealed to the writer as a contributing factor at least and worthy of consideration in the 8 cases herewith recorded.

Vautum according to Schiller believes that rotation of myomata in their capsular bed resulting in disturbance in continuity may be influential Other writers look upon the towns of pregnancy as causative. Some regard the trouble as due to increased coagulability of the blood and still others assign endarterial changes as provocative. Except in syphilitic subjects endarteritis in the childbearing woman is rare. This would seem quite sufficient to exclude endarteritis as a cause Finally the elaboration of a proteolytic fer ment must be kept in mind as possibly in fluential From this array of theories not one of which has been universally accepted we are forced to admit that the cause of the trouble is still clouded in speculation, though the theory of Murray has received wider acceptance than any yet mentioned

SYMPTOMS

The symptoms of necrotic myomata com plicating pregnancy are variable. In most cases they are quite active and of sufficient intensity to enforce rest and recumbency. Pain with localized tenderness is the most

the onset of pain was most abrupt and most volent resembling somewhat an acute appendicit Indeed in these two cases be cause of the pain being localized in the region of McDurney's point and associated with distinct circumscribed tenderness and a palpabel mass a tentative diagnosis of acute appendi

citis was made. In the first case the true nature of the trouble was not disclosed until filer the abdomen was opened. In the second case a positive diagnosis from knowledge gained by our experience with the first ca e was determined before operation.

In 5 cases the onset of pain with tenderness was abrupt but the cause of the distress was readily recognized in the degenerating myoma tous nodules. The third patient in our series was treated expectantly and after a few days the pain and tenderness subsided. Four

suspect a threatened abortion. With moderate care she was carried to term and was delivered of a female child by exsarean section. followed

one has experienced several attacks of moder are pain but never sufficient to cause alarm or cause one to think of interfering. At the present time except for pressure of a myoma

conservative bisomectoms was performed. In the fourth case the patient had three or four mild attacks before operation was advocated and performed. In this patient we believe operation was deferred too long. Two weeks subsocium to operation she aborted a

twin pregnancy

In the fifth patient mild symptoms indica tive of an oncoming necrotic process were ex persenced at about the fourth month. Two weeks subsequently the symptoms returned with increasing seventy and with such in tensity that immediate operation was con sidered The patient was extremely anxious to carry her baby to term. She was there fore in accordance with her wish placed in the ho pital and under simple medical meas ures the symptoms subsided During her residence of 14 days in the hospital she was extremely ill and at times her symptoms were indeed alarming These ultimately sub ided however and she was carried to term without further annoyance She was delivered of a male child by cresarean section a conservative multiple my omectomy being performed at the same time

The sixth patient experienced two or three relatively mild attacks which were controlled easily by rist and simple expectant means. She went to full term and was delirected of a female child by elective section. A constraint we multiple my omectomy was performed at the same time.

The seventh patient of this sen s suffered several attacks of moderately severe pain which at times caused her family physician to be delivered at term by an elective section and in accordance with her wish a conservative

their seventy a ruptured tubal pregnancy and in others the condition was regarded as an ovanan tyst with a twisted pedicle. In Schiller's case a pre-operative diagnosis of a

produce only moderate indisposition but in

are infinitely less marked. When inquesaction takes place in the necrotic tumor the localized acute phenomena are succeeded by more or

i i nionral In scute red

Ahlstrom in a collection of 74 cases of red necrosis and total necrosis found pain moder ate or intense the most noteworthy local symptom in 54. Pain is most likely to appear abruptly and with intensity in those cases

Leucocytic reaction is present and the count ranges from fifteen to thirty thousand

DIAGNOSIS

The diagnosis of the condition may be some what obscure especially if the symptoms arise in patient insuspectingly barboring a myona. This was the experience in 2 of our patients. The tumors in these patients were seated in the right anterior uterine wall. The pain and tendemess associated with a mass were referred to the region of McBurney's point bence a provisional diagnosis of acute anoendusts was made.

In the first patient the true nature of the trouble was not recognized until after opening the abdomen but in the second patient from expenence gained with the first a positive properative diagnosis was made. If on the other hand a patient has been under observation with a known tumor and acute symptoms later arise no special difficulty should be experienced in determining their cause.

In certain cases the diagnosis may be determined only after operation but with the recognition of myomata complicating pregnancy the possibility of red necrosis developing should always be kept in mind

PROGNOSIS

If the cases herewith reported could be taken as a criterion one could justly say that the prognosis is uniformly good. This in the

6 attoit or inyomata complicating preg nancy is rare

Schiller refers to 67 cases 3 of which terms nated in death Two of these fatalities followed

operation and here the part played by the operation itself in the mortality rate must be taken into account

If one considers the remote possibility of total nerosis with hugefaction and secondary infection followed by rupture the ultimate outlook, would be less hopeful Fortunately total nerosis with hugefaction while it occurs is not frequent and rupture with infection still less frequent.

TREATMENT

From observations made in the 8 cases of red necrosis complicating pregnancy herewith reported even though they be small in number combined with a study of the cases recorded in the literature one is able to formulate fairly definite rules regarding treatment First the writer believes that one can safely assert as we do of my omata in general that the simple presence of a my oma in the uterine wall is no indication for treatment at all Even myomata in such a position ostensibly as to act us a barrier to parturation may use out of the pelvis and permit of fetal exit. It is obviously not always an easy problem to decide which tumors may and which may not obstruct fetal passage during labor. However these neoplasms are as a rule quite accommodating and they usually disclose their real intention several weeks before labor begins Most of them rise out of the pelvis as the uterus increases in size and provide an un obstructive exit for the fetus

The writer believes that during early pregnancy unless the tumor excites acute symptoms irrespective of its position it should not be disturbed but treated along simple expectant lines

Tumors occupying persistently an obstructive position in the pelvis prouded they are agreeable to the patient we behieve do not call for treatment until near term when an elective existent operation may be performed and the tumor removed either by conservative myomectomy depending upon the size of the tumor and the with hes of the patient or a hysteromyomectomy depending again upon the wishes of the patient and the exigences of the case. In three of our patients with quiescent tumors conservative myomectomy was performed in two and a hysteromectomy was performed in two and a hysteromy omectomy in one. With regard to therapy in those c.ses associated with necrosis and acute symptoms one can safely say that this will depend upon the extent of the necrotic process and severity of the symptoms.

In most eases if not all we believe that a simple expectant plan may be instituted with the hope of carrying the patient to full term and then accomplishing delivery by section

demonstrated that operation during the course of pregnancy is associated with abortion

according to Winter in 17 per cent of cases In four of our cases early operation was demanded on account of the seventy of the symptoms. In one patient the symptoms were most inten e but the patient was treated expectantly and the symptoms ubsided This patient had one exceedingly violent vitack of pain with nausea vonguing mild

symptoms however ultimately subsided and she continued to term. She was delivered by an elective section and the tumor in accordance with her wish were removed conserving the uteris.

Finally the problem of red necro t of myomata complicating pregaancy with the symptoms pathology treatment and results to further portrayed clinically in the following

case histories

age 39 called patient

complicated by o struct period was established at the age of 14. The

oncoming abort on

o wav i ter

1911 at ut children are living and well. During the early weeks of her first pregnancy the patient suffice with severe nausea and vomiting 'On July 1 or approximately 4 months after conception the p tient was



Fg: Lrg sub ou t my ma ho g t s e vecro thy t fo mat Rem ed f m \ N 300

CASE 2 Mrs E E T Philadelphia Pennsylvania

admi sion to the hospital the last period occurred on

```
Fg 2 H tot goal et f Fig e Light :
bo est 5
Dicating preg ev m 1 Imm 1
```

it terrul ted chromic catgut sutures. The superficial margins of the would including muscle and

el in size to the growth recorded in the precelling history and on section it presented ple iselv the

)ca s

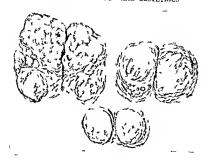
```
re dy mentioned

Exam nat on d closel the abdomen ome hat
d t nd dand tend Th m m m
```

post Na fa

admi on as o8 4 d g e s T and her leucocyte
c unt wa 13 000 The tender pheneal mass was
r e gnized s co nected with the uterine body and a
pr visional liagnosis of a necrotic myoma com

age of 14. The flow recurs regularly e ery 28 days and continues for 3 day. It is rather free but not associated with the discharge of clots nor 1 that companied by pain. The last period occurred on April 27.



serous myoma in the anterior wall the size of a clay

u two itt or the trouble was found to originate in a superficial subperstoneal my oma From the exquisite ten ferness of the growth a diagnosis of red degeneration was made. The

> with the patient discharging her household duties. During two or three of thise attacks she was sen by the writer and the or gin of the pain was attrib

I feless. Three areas of slate colored necrous ranging from o 5 to 1 cent meter in dameter occup ed the

from 0.5 to 1 cent meter in center of the neoplasm

Sibsequent history Following the birth of the history following the birth of the

the utt u position freely movable and except for a small sub twenty first day when the patient aborted a twin pregnancy The tumors removed exhibited the same features as were observed in those already described

Subsequent history Since the operation on May



Fg 4 Htlg l t fp mmen h nin Fgu 3 Right eas upp r margin fillustrati ni die t s t of nec as s

Case 6 Mrs R H Buffalo New York age 30 The patient suffered with diphtheria and variloid in childhood She had typhoid fever in early adoles

tion. Ino att cks were extremely severe dumpe o e of which the nationt was admitted to St. Joseph a Hospital She rem ined in this institution for a period of a weeks While confined to the hosp tal the pain at times was most violent and interference emed mevitable. The di comfort was accompanied by nausea and vomiting but with no febrile dis turbance

Upon physical examination the cause of the div tress was recognized as due to acute necrosis of a uters e myoma Th nat

Th

```
1 1 cu the a col t She id
nant until
fifth year
```

del vered lowed by multiple myomectomy on July 1 1922

```
16 1 4 11
                                                          # 25 n
  ntinued t term 11 t
bу
tor
len
```

ma es soustyp and protruded more from the uterine b dy than they d d into the ute me body u mum pat ents one and two The gro the were enucleated without special dif ficulty The surfac of h m -

¢ CC the Subseq ent I story On May 2 1021 th n Subs queril story. The rectivery of the national from operation was uneventful. She was able to nurse her child for the normal length of time. On we you have

y sge
y M nstruction started at the age of 14. The
flow was of the 28 day type and recurred regularly
R for feel from 3 to 4 days and was moderate in

may permit f tal exit

timil he play is a bout ee fourth and fith month of he ges toon. At the fourth and fith month of he ges toon. At the lime the put ent was comply into of prince cattacks of mild abdominal fain. Then new more or less frique at an it they nere associated abays with marked (rostration. At no time however were he symptom will arable.

is en apsul tel and el ngated. On sect on the large t measur si centimet is a siz g catest dimer son. The cut surface is yello vish gray in color

changes chara ten tic of a cro

hubs quent! story The patient reported a April 20 1924 that subsequent to her ope ation she has remained well

print ffe pain in mot instances has not been

Asid from mlj d comfort 1 o 1 1
11 ns use the patient now 1 surly comfortable
leve e ammat on on 10 1 28 1924 re eated
eral tumors occupying the uteri is wall. The e
apparently are of the sessile sub-ro 3 type. A
large growth was found in the left boxes utering seg-

Zenker's fixation
Histology Sections from the mass which is

3

í

Histology Sections from the mass surjoint attached to the uterus sho s it to be composed of cellular muscle and fibrous tissue the fibers of which interlace in areas the muscle tissue is rather hyperplastic and cellular while in other areas the issue; redematous and degenerated. Sections from the soft area in the timor show it to be composed of

REFFRENCES

BLA D SUTTOY] L 1 190 1 17 Iso Tu

7 KELLY and COLLEN M; malta of the Ulerus Ph 1

8 L. Turn rs
9 Le
1 la p 27
10 Liven F AP Pi c \ plasms N w \ L D

1 Update AC carp rs
1 Update AC

4 FAIRBAIRN J ha S J Ob t & Gynac Bnt Emp

clP s o

GEBHARD Vet II dbuch der Gyn ck 439
GEBHARD Vet II dbuch der Gyn ck 439
GEES ARIHUR F Stenl ty in Vi m n O ford Vedi

19 0 xV1 534 545 13 Idem J Obst & Gynx Brit Emp 19 0 May 543-545 14 SCHILLER IIE 10DORE Am J Obst 9 8 l

5 9-527
15 SHAW FLETCHER Tr N th f Ingland Ob tet &
Ginec Soc 910 Ja uary p 5
16 Vat n A n de gynéc 898 p 80

A 4 m 1 A 4 m

VAGINAL CYSTS

By LFE M MILES SB MD PERFO CHINA
A social Obs. cs. 1Gy 1 sy Pt gt. M do LC II g
F m h D pa tm t f Obt t. 4 Gy 1 gy f h Plang U. M d. 1C II

but the

SSTS of the vaguna are not a rare occurrence for Cullen has reported to 33 cases encountered in ten years in the Johns Hopkins Hospital and numerous other usbride cases have been reported from time to time in the literature. Most writers ascribe no chincal importance to them but that this is not strictly the case is shown by the fact that Frank had to perform a cesarean section because of an outlet obstructed by a viginal cyst and Judd Brettauer Matthews and ligeriham all have reported cases of vaginal cyst obstructing labor which necessity.

stimulus causing the cyst to increase rapidly in size. No one has offered an explanation as to why this should be the case.

Cystic tumors in the vagina may arise from the following source (1) Inclusion of vaginal epithelium due to trauma (2) occlusion of the mouth of vaginal gland (3) persistent em

fraumatic cysts or as they are sometimes called inclusion cysts are the result of in

That exists in the vagina should cause difficulty in delivery seems to be due to a c

the course of perineal repair operations. The costs are usually small. Only one reference (Matthews) could be found of such a cyst reaching proportions large enough to interfere with delivery. The cyst does not as a rule con.



Fg 1 Case 1 T aum tic cyst 2 10 Not the call fibro 2 ti the the ed utepith! mutho lyp pille at one point the cyst cot ta of c II débris

a rather caseous material consisting of cell débris as a result of desquamition of the superficial layers of the conthehum

The diagnosis of such cysts is quite simple both by gross and microscopic examination

tents are quite characteristic. The histological picture of a section of such a cyst presents the following features.

It has do norm 1

the superficial layers of the epithelium lying centrally. The contents of the cyst are composed of cellular déhris commonly containing leurocytes.

These cysts are the most common ones found in the vagina of Cullen's 53 cases 26 were clearly of this class

is not surprising because gland occurring in the vaginal mucosa are rare v Preuschen found vaginal gland in only 4 of 36 vaginæ studied. These cysts result from inflammation of the vaginal mucosa at the mouth of the



Fg Cas r Aport on of the cyst wall 40 Cyst wall composed of strat fied squames epith 1 m fib ou 1 sue abundantly s pph d with blood ves el

or if distended greatly the epithelium may be cuboidal. The contents consist usually of mucus and there is usually evidence of in flammatory change in the surrounding tissue

Cysts originating in embryonic structures which persist throughout life may as ume considerable proportions and may cause obstruction to delivery. They also offer hit tologically a most interesting study because

Cysts due to abnormal development of the mullerian ducts are very rare so rare indeed

development of the musi man u malformation of the whole vagina

Wolffian or Garther's duct cysts are not so rare and this is not to be wondered at since Meyer found that remains of Gartner's duct

-4 h m n



Cullen's cases were diagnosed as cysts of Gartner's duct

The diagnoss of these cysts of Gartners ducts is sometimes very difficult. One point which has not been emphasized by anyone except R. Meyer is the question of the location of the cyst. He states that Gartner's duct cysts are always found in the vaginal wall itself and never in the paravaginal tissue.

location of the cyst and on the histological picture which each cyst presents There is no typical picture of a Gartner's duct cyst The walls may be thick or thin may contain smooth muscle fibers or none at all the cyst may have been removed with or without the vaginal mucosa the cyst contents may vary from serous fluid to mucus or blood stamed gelatinous fluid. The epithelium presents the greatest variation in some cysts being low cuboidal in type in others flat epithelial or columnar in type and in other cysts all varieties of epithelium may be found in the same cyst including stratified squamous epi tbelium Abadie reports two cases in one of which the epithelium is low cuboidal in the other tall columnar in type Cullen states in the majority of our cases the epithelial lining consisted of cuboidal cells in three

cases of cylindrical and in one of flat cell the also classifies as probably being a Gart ner s'duct cyst a case in which the cyst lining was composed of both cylindrical and squa mous cells. In Ingraham's case the cyst lining was a single layer of columnar epithchium in one of Strong's cases the lining was com posed of tall chiated columnar epithelium and in the other with columnar epithelium and also areas of stathfied squamous epithelium.

also areas of stratified squamous epithelium Such striking and confusing variations in histological appearance of tumors arising in the same embryonic structure have been ex plained by R Meyer as due to the develop ment of the cost from different portions of the duct in which there is a variety of epithelium and also to the fact that these cells tend to differentiate and do not remain in the em bryonic state This latter fact may also ex plain why malignant tumors arising from re mains of Gartner's duct have been so rarely described. Mever states that in the cervix and upper third of the vagina the duct bas an enlarged portion which all o branches and this he calls the ampulla of the duct In this por tion the duct is lined by a great variety of epithelium cuboidal columnar many lavered columnar transitional and squamous epi thelium In the region of the hymen there may also be great variations as cuboidal transi



Fig 6





Fg 6 Case 3 P t of the cyst w ll the lining fa single lye fl g cubo dal cell I g ? Ca 4 I hotog ph i th t ct cyst

Tg 7 F c 8 Fg B C se4 Aport of the cyst all on h ing the lining c mpo d f si gle ly flweb dalep thel um

when cysts have formed the added changes due to pressure cause an unusual appearance

and lead to difficulties in diagnosis Tive cases of vaginal cysts have come to the attention of the department of Obstetrics and Cynecology since the department was opened three years ago Of these but one is a traumat ie or inclusion exist of the vaginal mucosa that case occurring in a foreign patient. That these cysts have not been seen in Chinese women may be explained on the ground that primary or secondary repairs of perineal lacerations have been performed only on such women as have been confined in a foreign hospital and of the e the number i small The a other ca es are all probably casts of Gartner's duct

Case 1 Mrs J white adult female p ra III Hospital No 574 Peking Union Medic I College s as admitted in labor to the obstetrical ward on D cember 14 1923 H r preced ng confinement had occurred two years pre ously in this hospital a dat that time there was a second deg ee lacerat on of th permeum which was repaired. On this occasion the child was delivered spontaneously and there was



A diagnosis was made of vagi al inclusion cost due to traum

CASE 2 Mrs S L W an dult white primi



Γıg





Fg: Caeg Porton fth cytwll sho g th p ment typ of epth l m d th clated p to l lay r fcll oo Fg: Case 5 Pt fth cytwall x 200 th

no cil t dep th l m and to the left of the cervix No other abnormalities

of the pelvic organs could be found by b manual examination. The vagina was incised over the cyst which was partially enucleated when it burst and was removed in strips by scissors. The vagina vas closed. Uneventful and no recurrence th I ig c mposed ityp I stratifed squam s epth I m. This port on of the cyt has situt td in the labs m. Th. a lide respond with the p i f the ductly gar ret to the hymen.

Ces Prionofth cyst wll x 200 h ung

The cyst wa about contimeters in diameter situ aled in the vagina in the region of the hymen and more prominent on the left side. The cyst was removed in strips by scassors having ruptured during the attempt at enucleation. No recurrence

Mic oscopic examination The sections consist of

d tinct b sal lay of small cuboidal or polygonal cell with de ply staining nuclei at other pl ce

the deeper portion of the tumor pointed to the right sid lt us cov red by intact vaginal epithelium

1 400

CONCLUSION

Five cases of cysts of the vagina are presented t case being an inclusion cyst of the vaginal mucosa 4 cases probably cysts of Cartner's duct

In cysts of Gartner's duct the epithelium shows great degrees of variation as to form

No cases of traumatic cysts have been noted in Chinese patients

In 3 of the four cases of cyst of Gartners

course of labor

The diagnosis of cysts of the vagina cannot be made in all cases from the histological picture alone but we must also take into consideration the exact location of the cyst.

My th nks red et those I the M su n Hospitals in

BIBLIOGRAPHY

t Asamu Drux as de kyst du gin d gine wolf fen e An d gynt et dob 1 1909 2 vi. 7 . He Trante J h w Y k Obst Soc Am J Ob t & Cyptc 90 - 91 1355 8 105 J COLLEN T S Vagunal Cysty Bull. J hns Hopk

ts 1877 1 3 B J Am M Ass 9 r lxxvii, 487 1000 A M Ass J Ob t & Gyn c. 9 0-1 385

ra of cells

5

1920-2 1 357

GAS CYSTS OF THE INTESTINF WITH REPORT OF THREE CASES

BY H W MILLS MRCS ENG LRCP LOND FACS SAN BERNA DING CALLEGE IA

NOWLEDGE of this condition in man also known as diffuse emphysems of the intestinal walls is comparatively

Of the earlier cases Marchiafava's is re

clusion (vide cases of Thorburn Mair Bindi Lettille Miuclaire Lindstrom Weil Bubis and Swanbeck Miyake and my own case here reported)

Duvernoy and Cloquet's cases have been rejected by some authors as examples of pu trefactive emphysema Duvernoy however is accepted by the recent authority Stojano yitch and it is specifically noted that the

Shattock

Bang published the first universally accept ed case in 1876

Ciechanowski in 1904 found twenty cases in literature

Arzt increased this number to thirty five in

Turnure in 1913 brought the subject up to date abstracting 49 cases and reporting one of his own

Mauclaire in 1914 added 5 to this list in cluding a personal one

In 1919 the review by Chastenet de Gery (66 cases) and the theses of Langand Stoyano

literature to date and in the same year Weil recorded 70 cases in his article Baroosa in 1921 reported a case of his own

and mentioned 70 from literature including those of Divernoy and Cloquet

Schulte in 1922 reviewed the subject at some length and quoted 74 cases

I have collected from literature to date or cases (of which 5 are admittedly dubious) and here add three new ones bringing the total up to ninety four

In America only 6 cases have been pre viously reported by Finney Turnure Twy man (under the title of Emphysema of the Cæcum) Sloan Hamman (cited by Sloan)

and Engstad

The chief contributions to the subject in
the English language are those by Finney
Sloan Shenman and Wilkie Turnure and
especially that by Nitch and Shattock. The
latter is a very complete exposition of the
subject of pneumatosis in general and of gas
cysts of the intestine in particular In con
nection with the former I may mention the
fact that Mayburn noted in operating for

cancerous stricture of the intestine where the distention was extreme gas coming from needle punctures which had not penetrated beyond the submucosa And also incident

ally the excellent results following artificial

case recorded by Shattock of a man who died suddenly after the inflation of his urethra with air postmortem air was found in both

ventricles of the heart

In France the first case was reported by
Jaboulay in 1901 and important articles on

Jaboulay in 1901 and important articles or

Recent German cases include those of Schulte Steindl Hey Schnyder Warstat

Faltin Demmer and Neugebauer
Lind trom reported 2 cases from Sweden

and Oldtmann one from Holland
Italian cases have been reported by Bindi
Matronola and others

Thus the disea e is widely disseminated throughout the world being reported from



I'g i Auth sease Phot graph take after pec m n had be n preserved to som in ntha in to pe e nt i ma in



Fig tuth ser Ph tograph t k n ft r specum n had be n prese ed f s m m thain t per ent f m

America England France German Italy Norway Sweden Holland Spain and Russia It is doubtless much commoner than published statistics would indicate

I ppngar Brei ky Kummel and Hahn The two cases of bludder cysts reported are those of De Carrargo and Lusenlohr Vide allo Jaeger Hahn reviewed 32 cases and noted that in every case reported some obstruction of the circulation had evisted Incidentilly in than it may occur in association with heart disease and in cirtain morbid conditions giving ne to venous striss eg pineu monia and pulmonary emphysema (Schulte Holstein). In Lieutoloty case of gas cylately fine the intestine coincidantal vaginal emphysema obtained. If his been specifically noted that the cysts in the vaginal ie ion my contain fluid in place of air (Ingraham).

In mirrals gas cysts have long be en known to obtain in the gut of pigs and have been reported by John Hunte in the eighteenth century and by Cloquet Mayer of Bonn Poth (the first microscopic description of the condition in animals). Dupraz Destertag Jacque Schmutzer and others Schweitzer and Hey demann were of the opinion that in hogs in testinal exterth with obstruction always ob

tained the gas entering the lymphatics through breaches in the continuity of the mucosa

While in the City of Mexico in September of I was told by Dr E L Valley Veternary. Department of the Government School of Agriculture that not only were gas cyst common in pigs in Mexico but that he had frequently ob erved them in sheep also and I note that shattook likewise release their occurrence in these animals. Hey reports the condition in chickens also J H Mohler Bureau of Animal Industry. Washington found a micro organism of the colon group as the etiological factor in every tase in examined.

Lettille regard it as a complication of chronic obliterating lymphangiti and the lymphatic site 1 accepted by many authors (Demmer Vatronois de Gery Hol ten etc.)

ETIOLOGY

The question 1 still sub-judice. All four theories bacterial chemical neoplastic and mechanical have their advo ates.

Batterial Theory Accepted by De Camar go Hahn Essenlohr Jaboulay Winand Miwa Nigrisoli Groendahl Arzt Jaman ou hu Wasiljew Martim Hol tein de Gérj and Lardeuthal Hahn secured cultures at operation these cultures he made on sheep strom and short hacteria developed but



Fe & Mter I M cau

subcultivation failed Dupraz and Jaeger secured positive experimental results. Steindl reported a nure culture of an anaerobic bacil lus in his case Finney found no bacteria Turnure noted the absence of bacteria in most of the cysts and regarded those that were



fibe smill tief om the e of

Nitch and Shattock in their first case lound no bacteria in the walls of the cyst or in the surrounding tissue. In their second case no bacteria could be demonstrated in histological sections nevertheless they ascribed the emphysema in this case to infection of the carcal will with a gas producing bacillus of the coli form group or an attenuated bacillus aero the histological picture i that of an acute infective process which involves the muscularis as well as the submucosa Bubis and Swanbeck and Twyman reported the absence of bacteria in their cases

Chemical Theory Ductsch suggested in di cussing Verebely a case that the Las might originate through the protoplismic function of the cells instead of coming from the bowel Compare the gas in framing milk and ripen ing apples

\coplastic Theory Among the tumor the

regards the cysts as analogous to the air bladder of fishes In these swim bladders which develop from and remain connected with the alimentary canal the oxygen is secreted by the epithelial cells of the gas gland and is derived from the oxy homo globin of the blood corpuscles the nitro gen diffuses from the blood plasma As a matter of fact giant cells (under the influence of which Bang and Finney think that the lymph is transformed into gas) are not present in the proper gas gland of such swim bladders (Netch and Shattock) Mair's arguments are attractive but fail in that he also regards the cysts as analogous to those which obtain in the vagina in the latter situation they are evidently dependent upon local or general circulatory disturbance for such obtained according to Shennan and Wilkie in every

Winands Orlandi)

Mechanical Theory It is probable that the cause is not always identical. One cannot ally a few of the vesicles contained fluid. He help however but be strongly impressed with



Ig I Author case Phot graph taken after pomithad been present of room moth 1 opre 11



Fig. 14th rease Philgraphial aft r pecum n h 1 bee p served for some m this oper form

America England France Germany Italy Norway Sweden Holland Spain and Russia It is doubtless much commoner than published statistics would indicate

An analogous condition obtains in the vag in and bladder of nomen both pregnant and otherwise cases having been reported by Rit g in Huguer Braum Winckel Chenevière Eppinger Breisky Kummel and Hahn The two cases of bladder cysts reported are the of De Cumrgo and Einohor Vulc also Jaeger Hahn reviewed 32 cases and noted that in ever case reported some obstruction of the circulation had evisted Incident lally in man it may occur in association with heart disease and in certain morbid conditions giving rise to vinous stass e.g. pneu monta and pulmonary emphysema (Schulter

the cysts in the vaginal lesion may contain fluid in place of air (Ingraham) tained the gas entering the lymphatics through breaches in the continuity of the muco a

While in the Cits of Mexico in September of 1911 I was told by Dr. E. L. Vallego Veterinary. Department of the Government School of Agriculture that not only were given someon in pigs in Mexico but that he liad frequently observed them in sheep also and I note that Shattock likew e refers to their occurrence in these animal. Her reports the condition in chickens also J. H. Mohler Bureau of Animal Industry Washington found a micro organism of the colon group is the etudlogical factor in every cashe examined.

Letulle regards it as a complication of chronic obliterating lymphangit; and the lymphatic site is accepted by many authors (Demmer Matronola de Gery Ho tein etc.)

ETIOLOGY

The question is still sub judice. All four theories bacterial chemical neoplastic and mechanical have their advocates.

Bacteral Treos. Accepted by De Camar go Hahn Fisenlohr Jaboulas Wasanl Mma Normoli Croendahl Arzi Jaman ouchi Wishjew Martim Holstein de Cornad Landenthal Hahn secured cultures at operation the e-cultures har mode on sheep serum and short bacteria developed but

testinal catarrh with obstruction always ob



Fig 7 After Her

In Shattock, s second case no obstruction beyond the limit of the lesson obtained and he states. The formation of gas in this case should be attributed to the infected walls of the intestine as the signs of acute inflammation indicate. He sums up the causation in man as follows:

r Trauma of mucosa caused by overdistention gas from intestine plus that produced in loco from a secondary infection of the lesion

Apart from overdistention as the result of local bacterial infection associated or not with an ulcer

3 Forable introduction of gas from the lumen through the base of an ulcer increased perhaps by ensuing infection of the intestine tall.

Sloan accepts the mechanical explanation for his case a man aged 32 in whom pylone obstruction as usual obtained in this instance from an ulcer which had perforated. The small intestine was covered with gas cysts A gastro enterostomy was done and patient died He remarks that the walls of his cyst were as thun as soap bubbles the contrary were many of them semi opaque and none gave the suggestion of extreme tenuity. He regards the condition as essentially subacute or chronic interstitial em physema of the intestine Pedunculation of the cysts is not especially obvious in the photograph illustrating his article. In my case it was

The cysts formed tumor like masses attach ed to the ileum in Finney's and Mair's cases to the omentum stomach and colon in Thor



Fig. 8 Taken f m O te tag II dbo k of Me t I sp t Tr l ted by E V W lc p Sg Lond Ball ere T dall & C 1016 Ed 1

burns Occasionally they have been found as high up as the jejumum Shennan and Wilke believe that the condition is primarily inflammatory in nature and note that the part of the bowel infected is usually the lower item that which is likely to be attacked by infective processes ie tuberculosis and ity phoid fever All that is definitely known about the gas be that it is doffers and non inflammable. Schulte says

The nature of the gas is still unknown.

The length of the intestine affected is from a few inches to its whole length. In several cases the colon alone was affected

DIFFERENTIAL DIAGNOSIS

The condition has never so far been diag nosed previous to operation though in von Hacker's case it was suggested by crackling on palpation of the abdomen The Yray may be evpected to wape out this reproach (vide Moreau). It should be stated that the cystematic between the state of the state

third case) I ostmortem putrefactive em physema must of course be excluded also the mechanical postmortem emphysema men tioned by Viscontini



Lg v Mr Nil (Sharek

the fact that a definite obstruction in some part of the gastro intestinal tract (usually pilone stenous from ulcer though in Fining's and Matronales a cases it was carcinoma) has existed in so large a number of the cases reported in Stennan and Wilkes 2 ocases symptoms of obstruction obtained in all but 2 (Esceniolit and De Crimirgo) and in 50 per cent of them pilone stenous from ulcer Barbosa remarked that callous gastric ulcer was found in 50 per cent of the reported cases and pylone obstruction in 72 per cent in 8 cases only were no concomitant gastro intestinal lesions discovered. Schnider's two post timely lesions discovered.

served gaping rents of the peritoneum covering the execum in a case of extreme intestinal distention it is not difficult therefore to imagine minute lesions of the mucosi. Box has seen this condition mechanically produced postmortem. Verebelly is an advocate



cysts oxygen is always present. Shattock places his first case in the same category thus. The lesion was caused by gas driven from

ing my case there also The etiology was evidently mechanical in Tsymans case No bacteria were found. An anomalous arrange ment of the cacum and ascending colon obtuned and the litter showed two marked angulations. A sharp angulation at the he patic flexive marked the limit of the cysts. The adhesion were freed at operation and the patient recovered. Buths and Swanbeck case (man aged 23 loss of weight 12 pound in 4 months) was mechanical in origin the

verse colon was done Recovery They ad vise short circuiting or resection plus removal of the primary focu and remark that pressure caused the air bubbles to change their position readily. Their case was one of em.

peritoneal cavity apart from perforation of the stomach or intostine. Three such cases were reported by Sir Rickman Godlee (Colon te theration complete obstruction of the bowel by turnor for three weeks execul uter lumbar colotomy in a man aged 72 for intestinal obstruction). Gaseou sacistes from unita peritoneal rupture of gas cysts obtained in Uthan scare.

dioxide obtain but never oxygen In gas

a

likely to cause obstruction (as in several of the cases reported including those of Oids mann Bindi both cases of Letulle and Tuffier and in my first case) excision is the proper cour e Short circuiting was performed by Faltin in his case and the patient recovered That obstruction may easily occur can be seen from an inspection of Figure 8 illustrat ing Nitch and Shattock's article also from the three cases of Nowicki in which the bowel externally appeared normal the submucous coat alone being affected. Orlands and Bartsch noted occlusion of the lumen of the intestine by the cysts

PROGNOSIS

That of the co existing di ease C de Gerv noted 22 deaths in 55 cases CASE RELORTS CASE I Personal (brought before the Southern

was operated upon in the same year for pyloric ob

ti abdo en to make roors a

u no rated the 1 c rc rated 6 fe t of gut which presented a mo t unusual appearance. The whole length wa surroun) d at short intervals by great grape like clu ters of ves cles varying in size from a per to a

walnut and exactly resumbling a hydatidiform m I of th ā

custs. As nowhere was there an area clear of ses cles for more than a fe v inches the whole 6 feet

culty except that resulting from the exces we thin ne s of the stomach wall

A careful search of the abdominal cavity failed to disclose any other cysts The operation was necessarily prolonged and severe but the patient

pounds se had very nearly doubled

The pathological report was cysts on the strength of the laminated an pearance of the cyst walls At that time I had no doubt as to the correctness of this diar nosis. My faith was shaken however a few months later by the report of Dr Stiles of the Bureau of Animal Industry Washington which was negative qua echinococcosis

The only alternative diagnosis was that of gas cysts of the intestine and to settle the question definitely I sent portions of the growth to Deve of France undoubtedly the greatest living world authority on the subject of hydatid disease and to the late 5 G Shattock curator of the Museum of the Royal College of Surgeon of London Deve reported definitely against it being hydatid di ease and Shattock at once pronounced it a specimen of gas cysts of the intestine or as he terms it diffuse emphysema of the in testinal walls a condition with which he was familiar having recently published two cases of his own As a matter of fact I am not par ticularly ashamed of my error as the then diagnosis was based entirely on the pathologic cal report macroscopically the two conditions

mat elastic abers have been reported as ob

F5

From secondary chanococcoss of the in testines this condition cannot be different testine and the condition cannot be different testine and the condition of th

was of hydatid diease until he noted that the exists contained air only which incidentally does not exclude echinococcoss Viscontini Lenormant Moreau Hey and Hahn also note the resemblance. In both conditions the cysts art frequently pediunculated. In my

ly increased by the demonstration of pseudo lamination in the walls of the cists. As secondary, hydrid cysts of the intestine are usually sternle and the presence of sugar and succruic and is inconstant the dispnos is in such cases frequently depends on the microspic examination of the cyst walls. The picture resembled that of tuberculous pen toutts in the cases of Hinh Urban and Tuffier

tin Neugebruer Mauchure Demmer and Warstat) or postmortem (Bang Mnaud Hisenlohr De Camargo Kouskow Miwa Korte Verebéh Crondahl Maass Lind stom case one Schnyder both cases Le tulle both cases and Bindi)

TREATMENT

is present obstruction may be sufficient in it ell to effect a cure vide Mori's case in which incidentally the le ion was tuberculous Also the cases of Chavannez Lindstrom (Case 2) Leiars Tuffier (both cases) Nitch and Shattock (Case 1) Barjon and Dupa quier Mauclaire Twyman and Moreau which all recovered although the cysts were not directly attacked at operation. The cica trices and nodules often mentiored may be evidence of spontaneous cure (Schulte 1'e Cers Urban Tuffier and Warstat) Urban and Tuffier demonstrated at autopsy that these cicatrices corresponded in ite with pretiously existing gas cysts Mauclaire in stances the case of a man whose inte tiner and omentum contained thousands of cysts year later he died from intestinal obstruction and at postmortem all except five or six cysts on the colon had di appeared. In a second case I ray examination of the abdomen for gas cysts was negative 2 years after gastro enterostomy for pylone obstruction had been done on a case of gas casts of the intestine Two months after operation Wickerhau er

and Tuffier found no gas cysts (Schulte)

Critical and Porte refrained from resection
in their case as it was impracticable on account of the extent of the lesion recovery
resulted.

each time a new crop of cysts. Three months after operation. Hahn and Ciechanowski

one third of the transverse colon was done

г

id a

one third of the transverse colon wis done
the
the
the
the
the

Accertheless in ordinary cases it would appear that excision should be abstained from when marked concomitant obstruction obtains and can be removed but that when the condition 1 so extreme as to be in itself

ofg this epris ton lumf am tersup from the 20 N teh and Shattock 62 Lejars 1913 63 Barj n nd Dupas cæ m crackled A porti n was excised for e aminat n 919 80 A tch and Shattock qu r 1913 F ltin 10 4 1919 64 Sl n 92 've gebauer 1914 82 Hamm n 1929 M cl 66 10 4 Cited by Slo Demmer 9 4 62 50 Bruns 9 Male ag d 5 g e a history f r 68 W rst t 917 69 Schnyder 9 7 8: H y 1020 84 B rbosa 19 1 Schnyd 19 7 Mo eau L 19 7 85 Ch a ne 192 86 Steindl 19 87 B bs and S 71 beck 72 Twym 19 9 73 Letulle nd Tuffier 922 Sch It oo Tib s first 28 case is that of Weil 80 Matro 1 74 Let Ile M tron la 922 E gat d 19 2 1919 ō Letulle and Tuffi r Dubio 1 Vill 924 Cases re 10 0 port d ab Letulle and T ffer

Mills 924 C ses re port d'above I append here brief abstracts of cases not included in Turnure's article

Cristol and P te

0 0 28 Lafoure de 19 9

5 DUVERNOY 1747 A topsy case Large p at of

93 Mils 1924 Ca es

potd bove

6 LEJARS 1913 4 f m le ag d 53 had suffe ed from gastric disturban 10 years om t g da ly She was m cisted a dher st m ch w d lat d y exmin tin s neg tie D gnoss pil ne steno du to

54 BONNET 1903 Pres ted t the Cl nicsl Soc ty of G bl 903 Me ti ed by Stoja ovat h as an un Me ti ed by Stoja ovat h as an un p bl sh d ease

55 Maass 904 By ag d 7 m nth ded from vn cp Potm rt m

6 F 1719

P eu S7 LI DSTROM I

6 SELGE AUE 94 M le aged 2 h d had bd m

N.F. 1

58 Li Derrou 9 2 C s Am naged 4 hadh d gastr c tro ble 7 je rs miting 4 jears lie was perated upo i st s gul rofth pyl rus C pelke lu t rs taining in the walls of gas cysts 1 Such fibers

tion test was not done because of the impossibility at that time of securing a suitable antigen

The patient is now quite well

Case 2 (Courtesy of Dr C P Thomas of Los

The case was operated on in 1911 for pylone obstruction a posterior gastro enterostomy bing done and the cyst was excised. The patient was very much emaciated and stomach dilated. Persi tent vomiting from vicious circle occurred after the operation and the patient died.

This case may be compared with that of Lafourcade in which also a single large cyst

almost so for to be of any vilue mittenal for examination must be secured during the actu al course of an aseptically conducted operation a condition which has rarely been complied with m man and obvously improbable in the case of animals in which alone positive results have regularly been obtained. Post mortem contamination occurs within a very few hours and vitates the results.

Mair is the only man who has made a senous attempt to establish the neoplastic theory and his argument falls to the ground

E as ad Ed tal I Am. M Ass L C M

the moment he admits the identity of the intestinal with the vaginal leatons since we know that the latter depend on circulatory obstruction at some time

Thus by a process of exclusion the mechan acal theory holds the field Infection as a second etiological factor doubt! s easily occurs from the interior of the bowle the home of the colon bacillus. Godlee sea es do not establish the possibility of osmosi of air (which Steard thusks possible) but merely that such a breach was not macroscopic and not discovered.

The list shows cases of gas cysts of the abdomen reported to date. The first fifth of these cases are easily accessible having been abstracted by Turnure in his article published in the Annals of Surgery live 1913.

```
1 Bang 1876
                             30 M tch ll, 1907
31 Groendahl 1908
 2 Fiscalohr 1838
                             32 Mair 1098
    De C marco for
                             33 Fan 3 1908
34 Hermann 1908
        skow 180
    Wanand 1805
                                 No cki gog
Nowick gog
   Kolli 1895
 2 O lands
             806
     (Regard d by Faney
                                 No 1 k 1000
              postm riem
                                 s oftmann 900
      change accept d by
                             39
                                 Jamano h
                                 Shennan and Wilke
      Lac )
                                   1900
                                 Westner o
 8 D praz 807
      (D bous ace rd ng
                             Case I Nudorf r
      to Fan y a cept d
                                   s d case n mbe an
                                   of Weil
      ano tch)
                             43 Smmond
 9 H bn 1899
                            44 Urb
45 Maru
45 N
                                       90
 a keert 1899
tt Wickerh user 1900
                                          00
12 Jos las 90
13 Mins 90
4 h rebely 1901
5 T lot 1901
                                       w tot
                            47 M k
                            48 Phil p Els 0
49 Crech nowsla 9 s
                            Turnu 9 3
51 Du moy 74
    Lallas-I matell
    P fnar 190
                                           747
                                  (R jectedby Turous
      (Dubious accord
      to Stoy novitch
                                   but
                                        ccepted by
                                   Stoyan tch
      M u laire and Lan
                                                 and
       ccept d by Tur
                                   Ba bosa.)
                            52 Cloq et a o
      DU
                                   Ac epted by Bar
18 Augrisoli 9
    Kad an 1902
                                   bos
19
                            53 Marchiala a 188
    Th burn 100
                                   R ject d by Finney
    Von Harker 1993
                            54 B nnet 9 3
    1 tl 1904
                            55 Maass 1904 D bous
56 Odim n 9
3
   St 1 994
   Cechan Li 9 4
                            57 Lindstr m 19
58 Lind from 9 2
   L ha sch 906
L harsch 9 6
                            so Bind g 1
8 Lbrib 9 b
                            60 L hino to
                                Ci ti 1012
   No 997
```

1

\$4 Bakeosa 193 Van aged 47 suff et with great single vie s. Vil p r tony; a slit us wit en of the polory and nour r s gas Q is were found acatered or ribergees (on unif, boriered the ! in Det ch died from yecope soon sit r operation. Vic se paid seed soon en t. Nos jobs the pysis we aspeal seed soon en t. Nos jobs the dipstopen war in die vie seed seed of the seed

set rose if but a e 85 Stri De 1921 St ndl eports thit pules litur s of an an r b b tenum wer obtaild from gas epst

٤

ı

p stulymphang is The capacity of the cyst wis liking on cubic cent miles

NOTES ON THE DUBIOUS CASE

M ses It m t be emembered that a case should not

e t these Styotch and B bo Inry is no there on pro n Marchiarava A other old autpy ce-g n

in finially Cloquit w q t familiar ith the ond

the care in tane I bel the lither that the case sheld be accepted

SYNOPSIS OF RECENT CASES
In h m
Ck

of cysts in four Orlitmann Rinds and both cases of Letulle and Tuffier

4 Fluid obtained in the cysts in two cases Bindi and Mandaire fl ted in water. The lime of the intests e was mich. 1 3 r Dignosis pylo i t n s Operat n n it n singt r wet th a testin bei la poten

g time tr tomy Re

t

dige to dig th nee

1019 lexus 5

Act I gie der sogenannten Kolpo-LINDENTHAL Z hyperplasta Cystica Wien kin Wchnschr 1897 Nos 1 a d 2 Jan 7 and 15 No 3 and 4 120 567 EFFICER Zischr i Helk I Cted by Runands and Kummel 1860 610-611 D to be 1 ta 3 ta attentesta J Am M Ass 1008 I 120 FRAE KEL E Ul r inen Fall von Gasent sa ta em phy em tosa wahrscheinlich mykot schen U sprungs MIRCUELL Cited by Mair Mena Ze tratblattif Chr 100 x 47 MIYAKE A b f Llin Chu 1011 XCV 437 FEVE 03 GAUL DARL A is the ische in d Webrische 1908 tri HACKER and ton Hitter Inn brucke We sensch A rat g wellsch 909 1 1 fien klin Webn be -14 DD 365 1430 19 4 XCI 590-597 ì JABOULAY Lyon med 0 1 xcv 753 AEGER PERMAR B Il unt. de l'Acad de méd n 1901 wis en AMANOUC LADJAN

Chir Lip 9 3 3 300 Kitt Path 1 gisch Anatomie der Haust ere 1905 1 662 KOLLI Ru k Vrach Sos Sept.

KOLLT D uts.b med Wichnicht Soo x 255

Louskow Boldisch gaz B thing St P tersburg 1891 Ot 7 KUMMEL, W Arch f path An a etc B al 1888 CX1V 429 LAFOURCADE M J Gas cyst of bdomen B II et mem.
Soc de chir d Par 1939 31 309 Soc de chir d Par 1919 al 309 LEJ ES F Lapacum tose kystiq del intestin Semain med Par 9 3 xx 57-53 LENGRUA T CH Les kyste gazeux d labd men Presse med Par 0 0 m 104 LETULE M Gas cysts of the int stin and pentoneum

Bill de lAc d demêd Par 919 xxx 3 5 350 Idrm Les kystes gaz uz d lintestin et du perit ne Pes endel Fa 19 0 1 in 781 Idem bluit ple cy 18 1 the am il intestin Bill Soc stat de Pr 896 P 498

Chir Lip

MATRO OLA Policlin Rome (sez chir) 1912 xxix

Lescate and Tuypier Bull de l'Acad de méd Par

MALCLAIRF A propos des kystes g z ux de l'intestin

Moreat L Arch deler med et de physiother 1917 Mons Deutsche Zeschr ! Chr 1917 xxvu 553 Moussy Des mal dies du p c llouzea and issel n NEUDOERFER Ctd by Arzt (Arts a cond case) NELG RACER Inte timal pn matosis Bitr z klin

OESTERTAT Handbuch d r Flet ebbeschau Atl ed 1916

PERUSSIA F (Milan) I hépatopt se parti lle par inter

Cited by OMA 15 % If C. Cited by Aitch and Shattock ROTH Lemphysème interstatiel du porc pneumato e

kyst ned 1 -

SLOAN H G Su g Gynec & Obst 9 0 xxx 180 STEEDE H Gas cysts a th sbd men D utsche Ztschr

902-1903 IV 55 Totor Lyon med gon cvi occ

5 Nine were treated by resection of the affec Den \stc died 6 In eleven cases the cysts were not them the structure of the structure o selves directly attacked at operation but re-. ... M n Th · mil) Gren. Short circuiting was done in one case that of Paltin and 3 weeks later the cysts had dis appeared 7 In two cases (Schnider both postmor tem) there were no digestive or abdominal symptoms dunne life BIBLIDGRAPHS In all the others obstructive lessons ob April Zik p tained 8 In two case the cysts were single large ones Lafourcade and Enestad o Bacteria (annerobic) were found in one case that of Steinell Apparpa Sac the bo rts le was submitted for publ is a (Jun 17 1924) I have com cross a more cales of g casts a man brief bat ets f which a e b r The bring the total of a war report d to d t up to one Buccas Gagiss the agen a permant om s hu dred secur Gs s to f the agun in permant om a 186 c ted by Ch ner 5t sa o nt h and C de 95 Kiper II 95 (Thes Tuch gen August t Céry BREISKY De Krankh in der Vagena Stutt at 1856 B OLAR EL and BE HAM Dath and S dd a De th aded p 52
BLDIS J L and SWA. B CR C E Ga cy is f the intes C 96 KUDER H C Ct č

the sheet and only to the posterior abdominal

The sheet descended into the pelvic cavity, and gained attachment to the pelvic colon and commencement of the rectum. To the right it was attached to the left border of the as cending colon and to the execum adjoining the eleocical junction. The large intestine thus also outside the sac (Figs. 7 and) and the sheet in most situations seemed to pass over the colon into continuity with the posterior parietal peritoneum as to represented in Fig.

The case described by Telfer is different and hi explanation can be accepted. On the other hand unless there were special vascular relations which were not mentioned the explanation given for the condition described by Lickles and Cameron Seems unsatisfactory.

It is difficult to explain (although Cleland seemed to think he could) the arrangement from the point of view of the development of the peritoneum as I know it. Fo a certain

of this very curious and rare arrangement of the peritoneum. Liere 1 beg to say a word on what I am afraid is an old and already much discussed

subject viz the question of kink of the terminal part of the ileum

I have pointed out that a Lane's kink in those examples of which I have seen photo

The Perstoneum (1919) which I have just seen resterates this point

Nevertheless there are other flexures of the ileum which are permanent and the adhesions, which render them permanent I have seen produced in part at least through the anchor

I rolessor Hertzler is wrong in aying I re garded certain folds without warrant as. Dev bedfor b m i that it had a down by side l m b Lane teoretor be d (f) the hydrical p mad Agril 1 See also E. mas I Cyne d then j.



bloodless folds of Treves I was too careful to see that they had the proper anatomical relations before stating definitely that they were such folds.

He is incorrect also in saying that I have described Treves fold as enveloping the accumb by a burrowing process Eastman described this in Subgery Ginecology and Constitutes April 1932. I have never seen the condition myself but it is possible for it so occur sine. Treves- fold undoubtedly may become adherent to the panetal peri toncum in the fetus.

On the other hand a genitomesenteric fold may form a definite pouch. In this case the

ners, again draw attention to the importance of the pressure of the large fetal pelvic colon in producing in conjunction with the gentio mescatence fold adhesions, and also distor tions of the bowle Lane continues to lay great stress on iteal and other kinks and has just sent me a tripint of his paper. Chronic attestinal Stasis and Cancer (Brit M. J. October 2, 1923)

I neemen has be as Prese po UA ax \$ 1 faxs so d pers be untily man de rmu fesson of ract paphyses to h uphbo \$ be Ann Soy Il surjen il Ze traibl f Ch o x 1 594

We ckel F A ch f Gyn & II 381 1871 1383 nt He Schulency in Lehrbuch die Fraue krinkheiten L prg p 151 1886 Worre 9 1 N 2 pirallo f Cf r 1000 p 2

A PERITONEAL SAC CONTAINING THE SMALL INTESTIVE COMMENTS ON KINK OF THE ILLUM

BY DOUCLAS G REID MB (FORM) ETC ANT MESERUS CAUREDGE E GLA'D

another sheet of peritoneum strong and distinct (Fig. 2). There were no evidences of old

p riturity in any region

Lickley and Cameron' have recorded an

form direction and vascular relations. The line of the root of the mesentery was mormal. The sheef which conceiled the small gut passed between the different parts of the large intestine but contained no large blood ves els or any, ve sels passing to the clond or fat. It descended from the transverse colon and formed the anterior wall of a large sac containing the whole of the giptimum and neum. The six was completely closed extent for a small opening in the sheet just below the



right part of the tran verse colon. It was at tached to the lower border of the transver e colon (Fig. 2) but toward the splenic flexure passed from the back of this part of the bowel

The descending and that colons were un u valle free since they adhered to the front of

Likky d C mer tef aso f beo maid no ton it m JA t 9067 xi 8 when the sou ded som it miles the JA t. 80

M.

Compare the with Case of he small so in of the small second of the small so by it for

the sheet and only to the posterior abdominal wall adjacent to their lateral borders (Fig 1)

The sheet descended into the pelvic cavity and gained attachment to the pelvic colon and commencement of the rectum. To the right it was attached to the left border of the as

sheet in most situations seemed to pass over the colon into continuity with the posterior parietal peritoneum as is represented in Fig.

The case described by Telfer is different and hi explanation can be accepted. On the other hand unless there were special vascular relations which were not mentioned the explanation given for the condition described by Lackley and Cameron seems unsatisfactory.

It is difficult to explain (although Cleland seemed to think he could) the arrangement from the point of view of the development of the peritoneum as I know it. To a certain

of this very curious and rare arrangement of the pentoneum

Here I beg to say a word on what I am afraid is an old and already much discus ed subject viz the question of kink of the

terminal part of the ileum

I have pointed out that a Lane's kink in
those examples of which I have seen photo

The Perstoneum (1919) which I have just seen resterates this point

Nevertheless there are other flexures of the ileum which are permanent and the adhesions which render them permanent I have seen

Professor Hertzler is wrong in saying I re garded certain folds without warrant as

Desc bed fin by m h J A 008-0 d 1 b d 1 iw h La leopel bad (B h Medical J mail April 9) See iso Eas ma Suzz Gynec & Obs 9 3 April



bloodless folds of Treves I was too careful to see that they had the proper anatomical relations before stating definitely that they were such folds.

He is incorrect also in saying that I have described Treves s fold as enveloping the excum by a burrowing process. Eastman described this in SURGERY GYNECOLOGY AND CONSTETRICS April 1931. I have never seen the condition myself but it is possible for it to occur since Treves s fold undoubtedly may become adherent to the parietal per

toneum in the fetus On the other hand a genitome entene fold may form a definite pouch. In this case the execum (or colon) does not burrow its way into a pocket but the fold has been pushed over it by the pelvic colon I have indicated this in the Journal of Anatomy vols xlvn and the I here again draw attention to the importance of the pressure of the large fetal pelvic colon in producing in conjunction with the genito mesentene fold adhesions and also distor tions of the bowel Lane continues to lay great stress on ileal and other kinks and has just sent me a reprint of his paper Chromic intestinal Stasis and Cancer (Brit M I October 27 1923)

It wo hyth boes I so not t(IA tax 5) fax on direct all tapo d mu famo f racso p byses to him p. Tunning I R (c) sis of the intestine A Surg 10 3 1 8 1 839 Tunnan F D Lumphys m I the cas um J Am M A 10 9 D c 3

Wastefen W Zatrafbl f Ch 1910 x 1 594

Wickel F Arch f Cyn ek II 381 871 1 383 and De Sch d cyste Leb b ch d Frauenkrankt ten L p 18 p 183 1880 Borren 4 \ Zent lbl f Chr 1900 p 1

A PERITOVEAL SAC CONTAINING THE SMALL INTESTING COMMENTS ON LINK OF THE ILEUM

BY DOUGLAS G REID MB (FOINB) ETC NEW MC ECOMS CAMBRIDGE E GLAND

T

400

enough to wattant a note. The surgeon on turning upward or publing asset the great omentum would have been puzzled not to find the small intestine for this was concealed by another sheet of pertineum strong and the tinct (Fig. 2). There were no evidences of old pertineums in my region.

Liekley and Cameron have recorded an

form direction and vascular relations The hae of the root of the mesentery was normal. The sheet which concealed the small gut presed between the different parts of the large intestine but contained no large blood vessel or any vessels passing to the coloni or fat. It descended from the transverse colon and formed the anterior wall of a large sac containing the whole of the jenium and ileum. The sac was completely, closed except for a small opening in the sheet just below the

sh Abportual
sh to protoreum
of Malloreum
Descending colon

I t Diagram t illust t the relations of th b cl t th abn mal sac I pent cum p Ab mal heet of pent cum de d see d g colo p a gre t ment m sil of bd men the mes tery or e d age is

Dositions and were normal as regards positions

Likity de mro Net f and b modifies to f h

fe earn J Anat, coop-f d b

CI I db reco I d soom hat nut ex I th J An 565

nght part of the transver e colon. It was at tached to the lover border of the transverse colon (Fig. 2) but toward the splenic flexure passed from the back of this part of the back.

The decending and that colons were un u ually free since they adhered to the front of

Compare h with Taxe of buormald poster [h per to um eco ded h J Anat zix 16 by \ T ii

such as loss of weight and persistent vomiting but it is difficult to attribute all such symp toms to mesenteric tumor unaccompanied by some degree of inte tinal obstruction

The diagno is is not usually made pre operatively except in the cases of tumors of very large size. There is one exception the case reported by Beyan. It is characteristic of mesenteric fibromata that they are freely morable. If one would only remember the occurrence of such mesenteric tumors the diagnosis might be made more frequently.

Ransoholl and Friedlander (4) emphasize the value of the Vray in diagnosis especially in mesenteric tumors of the large bowel there being a characteristic deformity to the bowel shadow. As they mention in their article, the

c

the presence of a freely movable hard tumor

PREATMENT

It seems superfluous to say that the treat

mortality Treatment must depend upon the size location and condition of the tumor. The ideal method is merely to enucleate the growth from the layers of the misentery and to closs up the tear with sutures. At times however, this cannot be done because of the location or the size of the tumor. In c., is so which the tumor is family adherent to the bowel or the enucleation leaves a deficiency of the blood supply to the intesture resection of the bow also supply to the intesture resection of the bow also provided the size of the reviewed cases; 1.2 per cent. The largest successfully removed mesenteric fibro.

it enterv

M s R age 5 white adult complained of pain and welling h the 1ght de The p en as littlery was uneventful exc pt that 3 years previously she

Plastal esams all showed a vell d veloped female adult apparethls not acutely all. The examination 1 as essentially negative except for the abdomen. There was a sext a sinches long from a beautiful and the sext and action of the sext and action a mass shout the size of two adult fast could be paleated. This tumor as exery freely morable to 55 somewhat painful and apparently vas just

1

normal

Operation The abdomen v as opened th ough a former scar \(^1\) hard tumor the size of two adult former scar \(^1\) hard tumor the size of two adult six was present in the mesentery of the terminal p rt on of the sleum s tunted at the junction of the mesentery v if the put The bowel was apparently 11 good condition but when the tumor was enu

1

val scence but made a complete recovery. Micro scopic e amination provide that the 1 mor was a fibromata vith no evidence of sarcomatou legenera tion.

SUMMARY

- r Inbromata of the mesentery are not common only about 40 cases being reported in the literature in the past 100 years
- 2 The magnosis is seldom made pre operatively but should be made more often if such a condition were kept in mind
- 3 Surgical treatment is enucleation with or without resection as seems indicated by conditions found

BIBLIOUR APHA

BELL Surg Clo Cheg 40 Che R Brit M 1 91 Otte 9 Nut fit (Brit M 1 91 RA on r d f EDL VD \ n S g o F bru y BLAD Surt v St T m is lance to d \ l l g

nat gr

LIBROMATA OF THE MESENTERY WITH THE REPORT OF A CASE

BY JOSEPH I DECOURCY M.D. AND JOHN J. MAIONEY M.D. CINCI NATI O IIO

ALTHOUCH hard tumors of the mesentery as a class are often reported in medical literature fibromata as a special division of hard tumors are quite rarely reported. Among the hard tumors we classify fibromata fibromy omata fibrosarcomata and linomati.

It is indeed interesting to find that a review of the literature by Greer (2) in 1911 for the preceding op years disclosed the reports of only 31 cases of fibromata of the mesentery other tumors of the mesentery are not so in frequent especially cysts and demonds Mortagan in 1761 reported a case of meta static carcinoma of the me entery from a primary tumor of the testis. Sydemham in 1765 reported several mesenteric tumors but these were of tuberculous origin and were found mostly in children. A later review of the



Ig 1 Dra 1 g of pec m n remo din th case

of fibromata reported are not without some degree of suspicion for as Sir Bland Sutton (3) remarks there is a certain amount of difficulty in distinguishing between myomata spindle cell sarcomata and fibromata

PTIOLOGY AND OCCURRENCE

It is unnece sary to attempt to give the enology of such tumors except to say that they grow from the interstitial tissue of the me entery. Whether they spring from fetal remaints or from the normal tissue of the mesentery is mothy a guess. Fibromata

tion. In the preater number of cases they are located near the union of the mesenters, with

the intestine

Age ser and race seem not to have any
influence on the occurrence of these tumors

They are present about equally in male and
female. Cases are reported in children and in

negro 1 as susceptione o a a is to other fibrous its ue formations

SYMPTOMS AND DIAGNOSIS

Most of the cases reviewed have been char acterize I by the fact that there were few if any symptoms Usually there is some degree of pain and later this is accompanied by a tuntor formation When the tumor is situated toward the perinhers of the mesenters in testinal symptoms appear sooner than when the tumor is at the base. Such tumors at the base of the mesentery do not interfere so readily with the blood supply to the intestines as those situated at the intestinal margin Intestinal symptoms are usually a marked degree of constipation passage of blood and later partial or complete intestinal obstruc tion Only a few of the reviewed cases have gone to the stage of intestinal obstruction operation usually being performed before this occurred At times symptoms may be severe

Osler under the title Conditions in the ap

out of 105 cases of autopsy and 3 others showed swelling of the mucous membrane

Typhoid bacilli Leen's Surgery says which invade the lymphoid structures of the intestine do not overlook the lymphoid tis

as a concomitant infection

Howard Kelly showed some years ago that infections of the gall bladder may originate in the appendix and involve the gall bladder through the lymphatic chain

pirchandent -

ing

tract may be temporarily cleared by medical treatment says that it is in these cases that the amorbæ have become firmly implanted in structures accessor; to the gastro intestinal tube when apparently the drugs employed could not be brought into contact with them in sufficient concentration to destroy them It has been recognized for some time that the appendix may be such a focus of infection In cases in which the stools have been tem

have been demonstrated both in scrapings from the mucous membrane and in micro SCODIC Sections

Bearing these points in mind it was decided to remove the appendix as well as the gall bladder to keep each separate and to for ward them to the laboratory for examination

The following is a brief summary of the cases and the laboratory reports

CASE 1 C S male age 60 was a typhoid car rier The typhoid history was unknown Chole cystectomy was done January 5 1021 One small stone was present The New York State Laboratory reported that the gall bladder contents showed the

uy by realex aminatio s made January 27 and 31 nere positive March 8 May 3 12 and 22 negative Since then there has been an occasional positive finding in the

many stools examined

CASE 2 A B female age 41 was a paraty pho d carner The typhoid history was unknown Ap pendectomy and cholecystectomy were done Janu acy 13 19 t The laboratory reported that the appendix and gall bladder were both negative Facal examinations made January 19 31 February 7 15 21 and March 26 were all negative

o date t cie nave i cen 35 erann anone ni negative Case 4 G I female age 41 Was a paratyphoid carrier The original infection occurred 22 years

1921 were negative CASE 5 A H f had been 1 bladde an 1921 Ther s ore in regan blander the laboratory reported that both the appendix and the gall bladder contained typhoid bacilli. L'acul examinations made January 25 February 2 and 14 se e positiv The six following examinations in cluding that of Ap il 13 1921 were all negat ve

Case 6 J C female age 45 was a paraty phoid ca ier The typhod history was unknown The gall bladder and appendix were emove i March 24 19 I Gall sto es were present Both the appendix and the g ll bladder were positive for paratyphoid Factal examinations Ap | 4 14 25 and May 1 9 were all negative

AS

During the summer of 1922 the stools of all operative cases were re examined many

THI SURGICAL TREATMENT OF TYPHOLD CARRIERS IN THE COMANDA STATE HOSPITAL

BY WALTER ILL LOSBURG MD I LCS DERKING NEW Y RK Of h c nov!

A\D

WILL TERKINS MD HELHUTH NEW YORK Of h Res 1 154 ff

crydem for7 t

ING CAS demic is believed to have been due to a ful tient currier who worked for a short time in the bake shop the origin we not proved The accasional appearance of a cale pointed to the probability of several carriers among the nationts

The difficulty in obtaining a history from I mem ed p ti nto mans of wnom have no to re pond n and have been for years in hospital is obvious. The extremely untidy habits of many instane nationts would concere this lead to the infection of others

With the co operation of the State Depart ment of Health a sy tematic search for car riers was undertaken in June 1918 Many placents have had repeated tests of faces and blood and every nation; entering the ho pital since that time has been tested. All em playees known to have had typhoid are re quited to be tested. All prtients and em plovees have been protected by antityphoid

7 fer ferra tory have had typhoid over 30 years previously. One man and a worken had had the disease

here

occurring in this hispital contact with a car tter could be shown during the month preced

ing the onset of the di east The preponderance of women carriers see his to substantiate the statement that nomen are more hable to gall bladder infection hence more often are carriers. In their nork as cooks and their domestic pursuits they natu rally tend to infect others more frequently The fact that in a population of a little mure than a thousand people to carri to can be isorated suggests that there may be many more carriers in every community than has been generally supposed. The frequent occur zence of an epidemic which is traced to a miller or cook should emphasize the impor trace of the more erreful to ting of faces of typhoid cases. Too often only one specimen is sent to the laboratory and in many cases it is doubtful if any attempt is made to prove that the individual is not a mentee to other

It 1 the writers belief that the u e of typhoid vaccine should be universal and com pulsory and that thoe handling food and milk in stores restaurants and notes anulot the general public should be tested by the State Dep rement of Health to show that

they are not carriers

As it became a problem to care for insane currers without a special building operation was considered advisable in the case of the younger and more robust inmates

When the surgical treatment of these cases was first considered the customary chole cystectomy seemed the operation of choice but a consideration of the organs involved in

riers. An analysis was made by H. F. Senfiner showing that in all but a cases of typhon! pollution of the inte timal tract at other times

I IPOMATA OF THE SIGMOID 1

BY JOHN T MOORE MD FACS HOUSTON TEXAS

T DESIRE to present for con ideration and discussion 2 cases of lipomata of the sig I mord It seems from a study of the lit erature that bpomata of the intestinal canal are not very common king (3) of New Orleans in 1917 reported that only 6 cases were found in 44 654 intraperitoneal oper ations at the Mayo Chnic Vacarri (4) in 1922 stated that he could find only 60 cases in searching the literature for the world Car lucci (2) found only cases in Bellevile Hospital New York from 1911 to 19 o A rather striking coincidence in our cases is that they came near together and were from the same small city

CASE I Mrs F B 3t years of age had been

abortion one ye r after marnage and o e 3 years after this At the birth of a child non 3 years of age she had a difficult labor and the permeum and c rvix were lac rated There was no vaginal dis of 23 was the only serious illne's reported. In the latter part of Janu y 1917 patient was taken th reg on The appendix and both tubes were removed. The mas was re ected after the rectal sigmoid and the sigmoid were immobilized

I dec ded that it would be safer to do a temporary colostomy rather than an anastomosi of the colon This was done by suturing the peritoneal surfaces of the gut together for a di tance of about 2 / inches The two ends were brought out through

fæcal fistula which persi ted and required a small dressing

Lab at ry report The mass removed from the pelvis con isted of bilateral pus tube with a small tumor mass attached to a portion of the resected sigmoid This mass was about the siz of a lemon of a dense consistency and showed evidence of inten e inflammatory reaction. A section through the mass and into the lumen of the bowel sho ed fatty to sue with fibrous trabeculæ part ally sur

note pan and greater difficulty in getting the bovel to move

v g nat examination th uterus was found to be fixed and th re could be felt a mass on either side ry tend r upon pr ssure A d agnost of b later I pu tubes was mad I ectal examination show d noth ng more. The a complete ob truction of the bowel as thought to be du to the pelvic con d tio

Labo atory aminat n February 27 10 7 The u ne w negati e and the Wass imanin neg tive the blood based basenglob a 8 per cent white cell 13000 polynuclears 71 per cent small lymphocytes 26 per cent large lym phocytes pe cent eosin philes o 3 p cent basoph les o 7 per cent no malarial parasit s





times and all were negative except those of Case 1 as already mentioned Cathartics were used before some of the specimens were col lected to stimulate the expulsion of any organ isms that might be present

In all cases a small rubber drain was in serted to the stump of the amputated duct and removed on the third day All patients made an uninterrupted recovery except that in Case i who had a profuse discharge of pus following the first operation but healed quickly after the second

In 6 of the 7 carners the faces are now clear after repeated examinations and the pa tients have been released from quarantine thus giving them more individual comfort and reheving their associates from the men ace of infection Possibly examination of duodenal in cimens might be a more accu rate method but seems to be impractical a

so certor nere for later no paratyphoid in fection could be found in the stools while previous to operation several examinations had been positive for paratyphoid Four of the

the 1

T/O

Abraham L. Garbat after a complete labora tory study of 164 cases of typhoid fever found 32 per cent temporary carriers and 3 to 4 per cent permanent carriers

I tyt dei

can

removed

1 t nct

ducts as well as in the gall bladder. In these cases cholecystectomy alone will not result in a cure and he advises prolonged drainage of the common duct with frequent examina tions of the bile so that when the bile i cleared the draininge may be discontinued

In a work published about the same time as Garbat's monograph Deaver and Ashhurst also advise drainage of the common duct

As in all cases in which the cultures of th

appendit How

or correct

In all these cases the appendix showed mac rescoure evidence of previous inflammation

SUMMARY

From these cases it seems justifiable to draw the following conclusions I There may be more carriers than we

would su pect from the comparatively for epidemics of typhoid in recent years

2 A small group of typhoid patients be come permanent carriers

3 Contacts both direct contacts and those concerned in the food handling should be looked for when there is a group of typhoid cases

4 All cases of typhoid should be Lept under observation until examination shows

of the umbilicus An opaque en trua shous obstruction or the lumen about the level of and constriction of the lumen about the level of

Diagnosis There is a tumor mass on the left side q sblacing looks of the small integrise and cansing ringuists. There is a timot mass on the test and and constriction of the luci

Departies of the assessed all colors. The name is constriction of the descend all colour Laboratory andress 1 100 to 1072 The unner so negative blood hemoslobin 85 per cent no negative blood hemoslobin 85 per cent no negative blood hemoslobin 95 per cent no negative white cells negative blood hemoslobin 100 per cent negative white cells negative blood hemoslobin 100 per cent negative white cells negative blood hemoslobin 100 per cent negative white cells negative blood hemoslobin 100 per cent negative white cells negative blood hemoslobin 100 per cent negative blood he maiariai parasites Wassermann negative in hite cellis 19 page phocytes of percent large lymphocytes for cent oswanth les of percent basophiles for cent large lymphocytes for cent basophiles for cent large lymphocytes f

Examination of the stools is negative left rectus in Operation July 13 1922 Your left rectus in Operation Stories of Strikes when the times of the left of the Market Market Strikes and the S touth of the left i cine marcie "ass wage a personeum to which the tumor was asserted was portoneum to which the tumor was adherent was rescribed along with the tumor. The postuneum was rest through the tumor mass freel posteroid was a track through the tumor mass freel posteroid. the mescaleine vessel ued. The normal bo el programmer reserved to the procurer to co ucture and accept the cutting being done by Au eng to eng susstamos 322 cismin here whenever and to end agastomos (as made over a large rubber tube which was brought made over a large rubber tube which was brought made over a large rubber tube which described made over a large rubber tube which was brought out through the rectum after the method described by Morrison and Ballour Number 1 chromit on Motusou and visitioning of the Err Cou s detaple qui enft) "a's ethetreuced ou second of carlon me sormula of the sar Cou Petraine can care, wa experienced on account of inere using so much lat along the venue assessment colon and aigmoid After removing the fat at the colon and argenoid.

After removing the sate of the gut there seemed very thinle blood supply left. Cigarette drains vere all of the manufactured utue oloog supply lett Agarette dialia tere placed in the neighborhood to protect against

The battent did eth en excell that he suffered the patient the ery cuency that he substitute following the some nausea and vomiting 5 t days tollowing the operation the tube from the roctum came a a) A gaze tollowing the oberation these say noticed some (acts) drawate from the approximate somings of makes from the observious traces and bounded During the day quite a p ecc of sloving came through the applominal would ? I ch broked to be a bart of the int stine at the submed his for s retail days toe int same at the sumre the through the abdominal onuq L eu, q33 att the oberation he pegan eren a arimike, naa en test minnien ine snoomman sing some fared matter through the rectum At b and some trees matter turougo the rectum At to could be as practically and toe dower more more more has by the natural ay. He committed to indicate in every ay except that a small fixulous obening bet reten seen ring garly quessings mber 4 1922 or 3 red to dose the

anastomusi as a lear a to all necessary anastomosi as I fear d to att ful after I had it ed it from the fat to get the gut atter 1 nad 11 ed 11 from the 181 to get the pentioned surfaces together. I adopted a procedure peniogen surfaces engener 4 googned a processing similar to the first the privious c se use fig. Which button to make the communication complete button to the home of a true the communication complete button to the home of a street the communication complete button the home of the communication complete button the home of the communication complete button the button the communication communi numers outlook to make the communication com-plete between the loops of int time. The re-sult has been all that one e tild—the The patient

was soon able to resume charge of hi business. He was soon able to resume charge of hi business. He reports that he is down a man so for his work and feels fine the state of the state o nere, his presented the tomor around the signored about the size of an orange Lpe kicatest foutdrodinst granteta ra to centimeters ra tonday, own snahen soont the 2 se of 80 or 90 or on the the greatest transverse diameter 7 centimeters, greatest transverse quameter 7 continueters the fundated and 2 (ew smaller labules of tumor is roomated and a lew smaller tobules of fatty it sue are seen above and below the largest latty U sue are seen above and new y the largest mass. The tumor lacks about 0.5 centimeter and noise the name sees about 0 5 continuers and root of completely surrounding the signoid. The riony of completely surrounding the sigmoid the sigmoid as resected at points about 4 centimeters sigmond as reserted at points about 4 centimeters above the mass and 3 centimeters below it. The above too mass and 3 contimeters below it. The outer surface of the tumor shows a very market outer surface or the tumbr 500 v5 2 very market inflammatory reaction on the anterior surface. The nuammatory reaction on the anterior surface. The portion of the bowel wall in evidence is covered portion of the bower wan in evidence is covered by an exidence of intensely inflamed tissue. Foste by an exudate of intensety minimed tissue years.

Though the timor shows a roughened area where the most of the mass is graph measured. The mass is graph. mesentery was attached the dense consistency and feed of sulated and has the dense consistency and red of a carcinomatous mass Sections in though the mass and most be tumes of the bone; show a typical and most be tumes of the bone; show a typical and the bone; show a typical fatty more numers of the nonet and a cypical b) band of connective tissue. These lobules appear n) pand of connecting the comblessed in the central to be smaler and more compressed in the peripher portion than in the periphery suggesting a peripheral growth of the tumor. portion than of the portion you assessment upon the ral growth of the tumor to encross them upon the muscular coats of the boxel is seen. The mucous

muscular coars of the burbet is seen and congested uning is also mixed through an layers are consessed and inflamed. No e idences of malignant changes and minamed type furthers or manginant changes are seen Microscop cal section from the interior of of the latty tumor of the sigmoid shows lobules of of the fatty tumor of the algebraic trabecture These trabecular are full of cells consisting of en Soppel at cells connective risene cells blasmy cell gotter at cents connective usane sens limatus cents small lymphocytes a few polynuclear neutrophiles

Subscute inflammation of lipoma I wall and adjacent and a fe v cosmophiles

to the Suumuussa Ine tati) its u o The mucosa has The fatt, us us in the submucosa Paket. We lest ter l'est see le pe sebatatus some The mucosa a of the muscular fibers. All coats of the intestine of the muscular inders. All coals of the show the ame use exauscume or the passy tumor nere saow the same type of cellular infiltration as that found in the central bottou of the timos bicasonally de

Lipomata of the intestinal canal may be considered as of the varieties (1) those scribed growing from the inside of the muscular or submucous coat of the bonel and (2) those

growing from the outside of the muscular From the discussion by Bland Sutton I or subserous coat

would infer that there are types of fatty bolds aconing asthm the lumen of the Ent



Ig a Meroscope dra ang of ects 1 of 1 poma.

Present sickness. If y z 1922 or about 2 months ago h began has ng ramps and great di tention of the abdomen the jain came about 2 hou s aft r

feet

Exam 1 ton The patient is a lt ge man 6 feet 1 inches in heigh weighs 05 pounds and is sillow and pile. His color is not good he looks

fied from carbol c acid pot or 1 5 och c

1923 Syear after operation

CASE 2 W II h male a c 45 years was 2 hard
vare merchant married with no children. The

excessively up to one year ago when se quit is altogether but he had never used alcoholics. He was in a had automobile accident in 1913 was

~

ŧ

RESULTS OBTAINED WITH THE PHENOLTETRACHLORPHTHALEIN TEST OF LIVER FUNCTION

By D C BULL M D AND L BAUMAN M D New York F mth D patm t f Surg ry Pesby us Hospet l Col mb U 12 ty N w Y k

THE phenoltetrachlorphthaleun test for her function and the phenolsulphone phthaleun test of kidney function are analogous in certain respects. The former substance is selectively removed from the blood by the liver and excreted in the blie while the latter is taken up by the kidneys and is excreted in the unne. The objection that only one function of the liver is concerned with the elimination of chlorphthaleun also applies to the excretion of sulphonephthaleun for the removal of acid. The concentration of concentration of

phthalen values have been observed after removal of one kidney and similarly normal chlorphthalein values may be obtained when considerable liver tissue is replaced or destroyed.

S M Rosenthal (1) found that the simplest way to determine rate of excretion of the dye by the liver was to study its rate of disappear ance from the blood he (2) also showed that in rabbits retention of dye was within a reasonable error proportional to the amount of liver tissue remoted.

Inasmuch as the literature pertaining to the development of the test has been repeated by discussed by recent authors (3) we will simply present the results of approximately go determinations which were performed according to the recommendations of S M Rosen that

The colonmetric readings were made with the help of a comparator. The serum from the first mule of his art.

serum 2 and 3 are obtained from blood with drawn 15 and 60 minutes after injection of dye. Errors in colorimetry due to escape of hemoglobin were avoided in the following manner. Alkalinized serum 1 to which a known amount of phthalein had been added

was placed in front of a tube of untreated serum 2 and the color obtained by looking through both tubes was compared with a pair of tubes containing alkaline serum 2 and un treated serum 1 respectively. The dye content of serum 3 was determined in a similar manner. Bilirubin in serum was determined by ovidation to the green pigment with concentrated utitie acid.

The injection of dye was followed by thromboss in the arm vein in 3 instances by chill and fever in 4 instances and by fever alone in one instance. One patient in this group suffering from advanced alcoholic cirrhoss hypertension and evidence of previous cerebral hismorthage reacted with vomuting chill and rise of temperature to rodegrees. The following day her speech be came incoherent and she gradually lapsed in coma and death. We were unable to determine if the injection of dye had a causal re lastronship to the second cerebral hismorthage which apparently terminated the patient's death.

The 2z patients included in this group apparently were not suffering from hepatic disease (Table I). The average amounts of dye in the serum after 12 minutes was 5 6 and after 60 minutes 3 2 per cent. The latter figure is somewhat higher than that obtained by other observers but this may be due to differences in colormetric technique. Obviously no definite evidence that hever function was definite evidence that hever function was

diagnosis was confirmed by exploration or by pathological examination or by both It is apparent that there is considerable delay in the removal of dye from the blood in this sense seven in the absence of bilirubinarium. The test may be of some value in this condition for example in helping to ascertain the cause of an otherwise obscure ascrtes or in determaning degree of liver involvement be

that have penetrated the muscular coats as he speaks of the dimpling of the serous coat by a pull of the pedicle of the tumor within the gut. This type of bigman is a frequent source of obstruction of the bowel because it both blocks the humen and causes an in ussusception of the bowel. Whartom (c) in an article on mussusception presents a study of z cases and mentions 22 other rises in the literature. Nearly all of these cases were of the submucous or polypoid type. The case presented by Vaccari was unusual in that he had two distinct tumers one of the submitcous type and the other of the substrous type.

Both of my specimens are distinctly of the subserous type a neither penetrated the

muscular coat at any point

Both tumors had narrowed the human of the borel to such an extent as to produce an almost complete obstruction yet there was no penetration of the muscles nor was there

ir inpomata have caused attacks of obstruction the mucous membrane covering the tumor has been ulcerated

The causes of Inponata as reviewed by Carlo Vaccart are as follows Cicals thinks that the pervascular infiltration in the connective tissue trabecular represented ponts from which the tumor grew and that these cells changed from the simple connective tissue cells to adapose ususe. Borst thinks

that become ta may be the result of metaplasia of common connective tissue into adipose tissue first that minute droplets occur in the cell and later one large drop is formed from their confluence, the nucleus being displaced to the periphers Minelli considers that bpomata are the output of degenerated con nective tissue and that there is a new forma tion of fibroblasts some of which make normal adult connective tissue and others degenerate into fat. Many authors think that inflammation has some relation to the development of lipomata L Aievoli attributes their localitation and development to the faults in the lymph blood circulation of the tissues to the extent to which the elastic tissue is able to function and to its distri bution regulating the lymphatic circulation and causing a depo it of fat

Vaccati s conclusions from his study of his 2 lipomata were that neither traums in fectious diseases tuberculosis alcohol smok ing nor arteriosclerosis can explain the origin of these tumors

enese camor:



TABLE II

н	D) s m		d gnor	G t	Phiecal d gnos	B:
	M es	M ⁶				<u> </u>
56357	1	- 5	Crth		C rehox	+
565 5	5		Crrho		C tc m d	4
56 6		_	Carrhos pl ms			+
56	,	8	Curbor f il 25 flow to play	tit	At phy cur hos	+
56			Crth fillw ayll phy (m h			+
6 4		- 5	C hos fill wing poly	El ed od l l		
383	- 3	8	C bos	C hos	C prhos	
759	1		Cupor			
8 84	1	•	Curb w			4
57 46			Ci			+
60 s	5		Curkos	C rrhes	Carrinosis	+
596 6	1		Curbos	Carb	C 12, pos	+
5 8			C h			+
5 5			Curbos (m h t)			+
5953			Curbous	Curbos		+

_			TABLE III			
II N	D (se m M ter	Cl x l d gnos	Ope t	Phi 1 d gm	BI Tm
6 8			Ch p			+
36068	8	5	Ch pa er t week p h legys en m			<u> </u>
56			Chol pylephi b is f po tal		Sam dl bec	+
		8	Ulc fd oden m			
- 5			Ch feeys chaf is but			+
\$4284	_	3	Amerb bec so 11		1	1
5 58				5 m or		
66 8		-	_			+
8	1	√		Sum ope		+
8 6	} —	-		-		+
8 6	-			m t oper 10		+
		-				tr
- 6	1-6	-,	C n h h does		S m	+
-						+
	1) 5	comm for h ler is	nt be so		+

TABLE I

	y		,		to seem months	
	(D ₂)	terum	{	1	1	}
H t			CR ital	0.0	P h I sexual	B7
	Man tes	Min es	distant	3 mos	d gnos	serum
1 126		3	Duode 1 ker	Lev sem 1		
g6 7	7	6	Car in ma fi g	1	C Inom I lun	
51097	3		Acu ppe dients	Acut ppe d	-	
564 8		5	Renal d pulmonary t here fro	R nal tuberculoria		
\$6 4	3	3	Hernia	-		
16034	3	1	Knee conditio			
5 7		3	Paralysi g tans			
53315	7		F tula in ao			
50 3	,		ind ground bd m			
357,34	7	1	Duori nal ale	Dandenal let		
5550	1	6	Other mor	Ovaria 1 mor	C) t 1 som	
45 53			Ch leeps tis, hol biblis	Cholectris held the six		
37965		3	Taxombous of pira	Thrombos spl st enn	by pre toneur	
60	3)	Cellul: is I media timum	1		
59			R properl onest accinema	R troper t 1 ec nom	R trope neal care nom	
500			Epilepsy			
5.5	1	7	Epilepur			
58 O9			A rey stool			
1 (7	3		Ladagrand			
font	6		Chron ph			
18510	6		Dood aal uk	Dwodenal her		
57 (OP)	6		Cholel h is			
Averag	5 6	1				

fort undertaking an omentopexy for cirrhosis or splenectomy in cases of splenic anæmia

r splenectomy in cases of splenic anæmia

Patient 60054 v as a woman of 50 who complained

pearance of cirrho is. All other organs in the ab-

Patient \$5225 was a young w man ith enlarged

EVENTRATION OF THE DIAPHRAGM WITH REPORT OF 7 CASES 1

BY I RUSSELL LERBRICKE JR MD WASHINGTON

VENTRATION of the diaphragm may be described as an upward displace I ment of one side of the diaphragm usually of the left side without break of con tinuity permitting one or more of the ab dominal organs to occupy a position in the thorax A relaxation and absence of the mus cular strength characteristic of the normal diaphragm is also a part of the pathological condition so that the lesion has been described under various other names such as elevation insufficiency relaxation atrophy paralysis dilatation high position and even hernia. In fact many of the cases reported and articles written are indexed in the Surgeon General's Library as herma although it is neither a true nor false herma

The first known cases were those of J T Pyle (8) in 1784 and J L Petit (8) in 1790 The first was in a newborn infant and the other an adult woman Both were discovered at autopsy and both were considered by their

h in the American Journal of Roentgenology and Radium Therapy It is the unusual privi lege of the writer to be able to report 2 well marked cases of eventration and 5 of slight elevation sometimes termed rudimentary eventration It is believed that the first case which has not been reported heretofore is the first to have been correctly diagnosed before operation or autopsy Diagnosis would not have been accomplished except for the \ ray Widenmann (13) made the diagnosis on his patient but changed it to hernia before opera tion The case of Bayne Jones (1) is the first to be diagnosed by physical examination and in addition it was the third right sided even tration on record

REPORT OF CASES

Case i Eventration of the disphragm obstipation Mrs O age 47 was seen January 14 1914

· '' i

tympany unde at and tenderness over the whole area

lelt

Roentgen ray examination (Dr A C Christie) made to determine the character of the mass showed

present century but 9 cases were known. It is one of the more rare conditions but cases a new in the cases and in the cases are cases.

y a 1 (1910) has ne joites (1) increased thenumber to 45. The succeeding 65 ears more than doubled the number of collected cases as Fatou of France in reporting 2 cases one with Louste (6) and one with Lafourcade (3) in rg 2 made the total number to that date

one or more

Henry J Walton of Baltimore presented a case at Atlantic City this year and gave a complete bibliography so that this will not be repeated as his paper will appear short

spleme flexure but ran straight up to the high dia phragm vault and was fastened there by adhesions which produced definite kinking. It was freed. The only other abnormality was that the whole upper

R dbf th Am le G tro-E terological Associa on Atla i Cty M y 5 9 4

fou d A ection of the liver showed the histological to ture of circhosis

Pronounced joundice was a complicating feature in most of the patients included in this group (Table III) Obviou ly obstruction to the outflow of bile may interfere with the chmination of the dye and permit of its

present

Patient cords suffered from an amorbic infection of the liver characterized by a large tender liver fever and amorba in the stools Emetin treatment was followed by raps i subsidence of symptoms and corre nonding increase in the ability of the hver to excrete the dye

The retention of dye in patient 56347 with signs and symptoms of duodenal ulcer is difficult to explain It has also been observed in this condition by Ottenberg and collabo

rators (4) who conjecture that damage to the liver may have been occasioned by absorption of infected material from the ulcer into the portal circulation

CO CLUSIONS

If it is permiss ble to judge from a limited experience we b heve that the test will come to occupy a definite place among clinical faboratory methods

REFERENCES

- ROSENTHAL, S. VI. A new m thod of testing I fun tion with ph nolt tra blorphithal in. J. Am. VI. Vis. 50; 1 fear.
 I dm. The ph. Itetrachlorphithalem test f. hep to funct in. J. Am. M. Ass. 1024 lexen. 1049

3

Off XXX V 6



Fg t (l ft) R dum tary entrate n Ca 3 l 2 Ca e 3 sh g v h gh g filled e lon

been \ rayed 2 years before by one of my colleagues and no note was made of high position of the disphragm and lastly the gradual but marked improvement in position would speak in favor of an euological factor having been removed

Case 6 Rud mentary eventration reno ascular d ea e nerve exhaustion Mr B L G aged 57

IGE IND SEL

Cases have been described in which the condition occurred at all ages from the fetus and day old baby to the eighth decade. It is stated that the incidence is 4 times greater in males than in females.

ETIOLOGY AND PATHOLOGY

high r than the right and ther as distinct 1 g in a cu sion. You us shadow behind the ca dra was tho ght to b due to thicken ng along the main b chal trunks (Fg 5)

CASE 7 Pudimentary eventratio Mis k Q g d 21 Vas n with D Ernest Morgan January 0 924 Sh hal no marked symptom except

INCIDENCE

L entration is suppo ed to be much more infrequent than hermi of the diaphragm flus Pipinger quoted by Bayne Jones gives the ritio as 1 to 37. It is difficult for the writer to behave that this proportion is correct having had not a single case of hermi

most cases are congenital Arguments in favor of this view are (1) the occurrence in the fetus and infant (1) the frequent association with other developmental anomalies (3) the long duration in many cases without change (4) the usual absence of any known exciting factor mechanical or otherwise and (5) the fact that nearly all cases involve the left driphragm the formation of which in the fetus differs radically from the more simply formed night side.

Louste and Fatou (6) state that some un doubted casts of required eventration have been reported. Thus Felix Pamond reported in instance of driphragmatic pleurisy in which there was an enormous obstructive aerophagy which coughing suddenly transformed into eventration.

clo ed

tu b

part of the small bowel : as putty like like a sort of urticaria

Mr A W aged 45 was seen October 19 1913 at the request of Dr Maphis of Wattenton Six years before he had had a gastrojejunostomy for bleeding ulcer No ben fit ensu d Three days before he had

s w men i but i ma both i ci i s i mesi ii in and the lelt colon were high again i the dome. The h art w s very little displaced to the right. There

- - -

I have not found any other record of such a
the

a ka

unique in the combination of perforated hor glass and eventration. Thomas (1)) reported a case of aneurism of the aorta with paralysis of the displiragm and hourglass stomach. There seems to be ome likelihood that the case may have been of the acquired variety and may have been due to touc paralysis of the phrents nerve from the slowly perforating, uteer. In favor of this is the fact that the nation that the deep operated upon 6 versa b fore

and no eventration had been noted. He had



d the ds ppecarance if the hell sedef musty with
pefectly functioning getroente timy (Diaphagm
t ched)
Figs R dime tripe entrato (Case 6) (D ph. gm
l retouched)

pnœa but never anything which may be s.id to be either characteristic or in any way diag nostic. Louste and Fatou state that there are three types of patients (r) the pleuropul monary (2) the dyspeptic and (3) the cardiac

PHYSICAL SIGNS

The physical signs will not be dwelt upon in detail as while they may be more or less characteristic diagnosis is not made from them but from the 's ray On the affected side there may or may not be a bulging of the chest wall One of my cases showed a marked deformity In a well marked case there should be normal percussion over the upper part of the lung on the affected side which is the left in over go per cent of the cases Below this there is marked tympany or a tympany with abnormal dulness depending upon the con tents of the space in the thorax occupied by the abdominal viscera. There is an absence of breath sound to auscultation and there may be other sounds instead as gurgling or splash

The heart may be displaced more or less to the right Tests of swallowing liquid and dis tending the stomach with gas have been made to determine whether this organ is elevated

DIAGNOSIS

Eventration is a condition in which the N To is essential in making a diagnosis. It is not always easy to differentiate from herma of the displaragem even after all tests have been made. To make a positive diagnosis one must see the clear unbroken line of the dome of the displaragin luigh in position. But even

pneumoperateoneum

Under the fluoroscope respiratory excursion of limited degree on the affected side is usually noted. There may be a perceptible lagging. If paradoucal movement of the diaphragin meaning descent with viriation and ascent with inspiration. In noted the weight of evidence would be for herma and against even tration but this sign is not pathognomonic.

PROGNOSIS

It was no b

condition and the presence or absence of

In a child shortly after birth Weigert (12) demonstrated eventration. Nine weeks later the condition had become spontaneously cured. He believes that his findings point definitely to the conclusion that in cases ongrating at birth injury of the phreme nerve is the primary factor and degeneration of the

tentral cases for the production of rudimen tary eventration

If we assume that eventration is congenital

It we assume that eventration is congenital we have not then explained the mechanism of its production. We must briefly review some of the pathological findings particularly of

ease or not unless some case could be traced through a proved progressive rise in the dia phragm. Several of the writers cases have been reexamined and no increase in the condition is noted.

On the other hand Mr W Case 5 had

up and down in the abdomen becoming convex instead of concave and actually making a sound it seems inconcerable that the condition could have been present to such a degree at the first overation without being recognized.

It has been claimed in favor of acquired eventration that the elevation may be caused by differences of pressure on the two sides of the diaphragm or by discuss of the nucle or nerves. Hoffman (4) thinks that chrome gas cous distention in the stomach or bowel may produce at least rudimentary eventration. He argues that pressure on the diaphragm produces circulatory distributioness leading to loss of elasticity digeneration of the muscle and stretching.

Without being able to say what is cause or effect I can say that all of my cases but one showed a marked excess of gas and dilatation of either the storach or colon or both just under the dome of the diaphragm. The colon particularly seems fastened to the under surface and is up to be rather sharply. Linked and distended. I have considered both the fusion of the colon to the diaphragm and the rudimentary eventration to be developmental.

thin blutch or gray membrane but always without defect. All coats are present except that in some cases mustle fibers appear to be absent and in others a few weak libers may

smau space it is not found compressed now ever but the condition is a hypoplasia. Many cases have shown anomalous development of the lungs in the form of extra or irregularly

marked cases. I believe that the heart position is partially produced by the lung condition but that it is also modified by the

pand the lung. No hypothers has yet been proved. We do know that there is a deficiency aluke of diaphragm and lung both probably congenital and due to defective development.

SYMPTOMS

Eventration per se may be strikingly free from symptoms. Any symptoms that the patient may have to cause him to seek medical advice may be from some of the secondary

DEPARTMENT OF TECHNIQUE

AN UNUSUAL TYPE OF PARALYTIC ABDUCTION DEFORMITY OF THE HIP—AN OPERATION 1OR ITS CURE

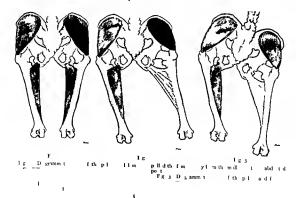
By LIO MANIR MD N v No &

The paralyte deformities at the hip and flevoin contracture is an exceedingly come not as frequent are often seen particularly when the paraly is is of the spa tic type. Abduction contractures are however unusual and so far as I know an effective method of treating them has not as yet been described.

To understand their development the following diagrams are helpful. Figure 1 illustrates the pelvis seen from behind and shows the femora balance i between the opposing pulls of the abductors. If now the ad luctor mu cles become para

hzed either because of poliomyelitis or because of some lesion of the obturator nerve the abductors will swing the leg away from the midline and if their action is not corrected a shortening of their fibers will occur, which combined with

trated in Figure 2 Since it is difficult to walk with a leg held at the angle the patient uncon



associated lesions. Exentration per set not particularly dingerous and may not sen be much of a physical handreap to the patient It lasts often for years before being desouvered Study of many cases however shows that there is a much higher incidence of associated organic disease of the upper bidomanal system such as ulcer and gall bladder disease than is the case in the average population.

TREATMENT

There can be no medical treatment for the exentration nor may any treatment be in dicated in the ab ence of symptoms. Treatment must usually be aimed at the correction of complications or concomitant condition

or toward the amelioration of samptoms. So too from the standpoint of surgers there can be laid down no hard and fast rules. If may be said however that no operation should be attempted and sa the need for relief of samptoms is great. Mere opening of the inhomen fast resilied in de-th ferse of Aron son). Death has occurred in asytotic from the saudden return of organs to normal position after being so long di-placed (Carnot and Iradd.)

Wood proposed plication of the diaphragm and Lerch (5) uccessfully performed the would have been possible but it was not thought advisable because of the extreme thinness and lack of tone throughout. There could have be n no strength in the plicated disphraem

It is my opinion that any surgery should be aimed at the abdominal organs and that the diaphragm should be let alone in the hope that if the obdominal organs can be restored completely or partially to the obdomen per minently or temporarily the diaphragm may gradually regain some tone and occupy a lower plane as in this case in which descent

of approximately 4 inches is noted. Thus adde ions of a twit ed stomach or a dilated colon fastened to the disphragm may be divised and the organs brought to a lower position while no attempt need be made to fasten them in the new position. The patient should be kept in the unpraise position and denge considence from the operation and dependent processing corrections exercises instituted as soon as

po sible
It would seem that eventration is a con

may make the difference between a live pritent with some improvement and a dead pritent in whom too radical a cure has attempted

and (3) diverticular exentration. The last two types should be more amenable to surgery than those in which there is total one sided

involvement. A number of cases have been op tated up in for complications but in le 5 than a dozen has optention been performed directly for relied from the operation and its owl of the eventration. This, of the chair died from the operation and its owl one of the scheres could am thing be don for the eventration the rest being lot ed after inspection. A thoracol printenin, has performed in Louste and I atous case by Robins in. The prinent condition was very bad and death followed the operation.

It is technicall almost imposible ucces fully to plicate the diaphragm through a laparotomy. In Case 5 (of the writers) this

(Fig 6) The tip of the trochanter was then cut off with the chisel liberating the shortened ab ductor mu cles It was then possible to adduct

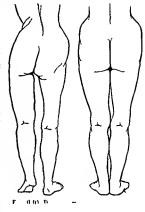
made through the capsule of the joint near its attachment to the neck of the femur (Fig. 7)

Immediately after this the leg could be swung well over to the left side of the body and the right heel brought into contact with the left. The abduction contracture thus having been over come the next problem was how to keen the

limb in the adducted position

To do this a 2 inch strip of the fascia lata was dissected away from the lower half of the think (Fig. 5) Above the fascia was left attached by a broad pedicle This strip of fascia a inches wide and 8 inches long was then drawn upward and inward through a subcutaneous channel and fas tened under tension to the spine of the pubis and to the inner portion of Poupart's ligament by means of strong chromic gut sutures (Fig. 8) At the point of reflection the pedicle of the fascia was reinforced by means of several sutures so as to prevent tearing of the tissues The wound was closed no attempt being made to suture the tip of the trochanter to its original site. A plaster spice was applied holding the leg in adduction of 15 degrees

The plaster was removed after 4 weeks and active and passwe exerci set once begin. These have been continued to the present date. The abduction deformity has been entirely overcome. The lumbar curve has disappeared and the limp is scarcely perceptible. There is slight power of coluntary adduction. In spure of the fact that the up of the twochanter has been chiseld off the abductors have recovered almost the normal abductors have recovered almost the normal



strength There have been no unpleasant se quelæ due to the removal of the strip of fascia

two processes the development of the abduction contracture and the downward sinking of the

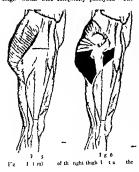
patient walked with a peculiar himp due to the equinus position of the left foot and the down

> this de ocess of ing the

operation in other words all those structures

been made but the muscle examination made it evident that the cause of the disability was un questionably poliomyelitis. All muscles were found normal except the right quadricens which was weak and the adductor muscles of the right thigh which were completely paralyzed. The

contracture of the fascia lata and at the same time permitted the retraction of the gluten max imus muscle and the exposure of the trochanter



yth o remigil see difetor in th omir ctu Aft

upward of the dad dabdu to the hip int w sposes f the cap ! This e m th th rd d last i t

m m sh sb en et cted nd the bd ct rsou tta h d to the gre t t och nier sposed The tip f th th th att hed m I w s trocha t togeth

did not run into the peritoneal cavity wound around the tube was left open for drain

wa invited to do the enterostomy

Dr Kelly also suggested enterostomy feeding

but left the method for me to work out It cems to be fairly certain that this child v as

nours hed during the course of an acute diffu e peritoriti (extent of course undetermined) by 1 1

I postel the intigutor passes on (unlikely) to the colon. In the latter case we could still believe that the small intestine partially functioned

The necropsy findings in peritonitis are consistant with our experience in the case. The lumen of the small gut in peritonitis is often un ob tructed for several feet. The mucous mem brane may have an ab orbtive power if fluid is presented to it under a certain low pressure

oizváa / a short

i illection of nourl hin, a patient in such a condition would be far le irritating to the patient and more physiological than the Matas continuou venous infu ion or other infusions or hypodermoclysis (our patient was antagonistic to the latter.

The column of fluid would not hinder the escape of the gas of di tention. In our case was bubi led out (small amount) while the fluid ran in Drainage can be alternated with nourishment We lowered our enterostomy tube at times to note the effect but only a few ounces were ob tained during the 4 days

We would outline the treatment of acute diffuse peritonitis in children as follows

1 An indwelling stomach tube is used to obtain the four indispensable effects enumerated above If the tube is not well borne a gastros tomy should be considered so absolutely neces sary a stomach dramage and lavage. Our expersence a ures us that stomach drainage and enterostomy are both needed and that neither can fill the need of the other

A high entere tomy is done for drainage

and also for nourishment in fluid form to be

3 All operations (enterostomies etc.) should be done a early as po sible

4 Tranquility should be maintained by gener ous subcutaneous doses of phosphate of codeme 5 Continuous hot pack with electric pad to avoid disturbance should be used

A METHOD OF INDUCING THE SWALL INTESTINE PARTIALLY TO IUNCTION DURING THE COURSE OF ACUTE DIFFUSL PERITONITIS'

BY IOHN I TOMITAD MP PACS MEDICION & CONSCIOUR

THE E watching the terminal events as

We will now de cribe the detail in the treat ment for the description of which the article has been presented At the juncture I attempted to noun h the patient (other method) failing from lack of the patient's co-operation) by injecting a 5 per cent

The cenal ele The total aluter of the leading a complete

ŧ

some nat It then occurred to me to fasten the

men I then poured 2 oun es of the glucose solu tion into the wringe barrel and natched the column of solution it e and fall in the syringe barrel The column seemed to re and fall with respiration and to make greater excur ion at

It worked dry and night for the next a day

hours 1 uì e FORM

temperature and pul a came down and flata legen to e cape rectally in the night of July 4-25 and unnex a ecreted in large amounts

I feel sure that the solution slowly manua ed stself rato and along the lumen of the inflame i or ob tructed gut and wa absorbed for the follow ing reasons. First on account of the co-incident gen ral improvement in the p tient second

ston ach | This nur 1 the not ings. The enterostomy tube wa inspected while the fluid was poured into the syringe. This fl id

h rs

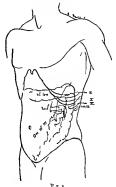
F 1 4

simplest from the standpoint of access to the upper jejunum and from the standpoint of preventing prolapse of distended bowel through the abdominal inci ion

This finding has at the present time been veri fied by the successful use of the operation in a

number of cases

The operation can easily be done with the patient in his own bed



Fg 3

dominal opening is small it is not necessary to su ture it the muscles falling together snugly and at

the same time being sufficiently open to prevent any extensive infection of the parietes

ANATOMICAL EXPOSURE FOR TEJUNOSTONYS

BY I S RAVDIN BS VID P STADELPHIA

ITHIN recent years as the problems connected with acute intestinal obstruction the form

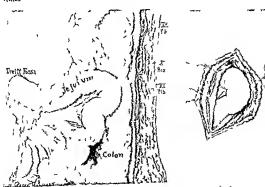
Since the law on

a liverita 120 Jegra

As to the value of enterostomy we must take into consideration the experimental and chincal work of Sweet. Whipple and others who have shown that the absorption of logh intestinal contents is extremely dangerous and may cause

n.
n
h
lews the opening

absorption of the toric fluid is therefore not pre-



R (D) Gru

tr Jarbh

curative even though the catheter was left in silu 16 hours with frequent flushings of the kidney nelvis. Both mild anti eptics and normal saline solution seemed to aggravate after a primary rehef of symptoms

Sterling (8) states that occasionally in a pyclonephriti of pregnancy it will be necessary to empty the uterus but indwelling ureteral catheter should be tried and if necessary pelvic

lavage instituted

Daniel N Er endrath (2) says that the treat ment of prehtti of pregnancy and of the puerners um has been completely revolutionized since Stoeckel showed that it i po sible abruptly to terminate the majority of the cases especially the more severe one by layage of the renal pelvis More recently Caulk and others have shown that provi ion for free drainage of the infected renal pelvis through the employment of the ureteral catheter alone suffices to accomplish the same results as lavage if the pelvis is not dilated too much When pelvic lavage or ureteral catheter ization has been begun it should be continued until negative smears or cultures have been obtained because a recurrence is very likely to take place unless a complete cure is possible. The prognosis should always be guarded if only a cessation of symptoms has occurred Caulk neaks very highly of catheter dramage and be lieve that it will cure in all cases except those in which the renal pelvis and ureter are dilated as the

ated treatment should be continued if p sable until a bacteriological cure has been obtained. If the symptoms of severe epsi continue in spite of pelvic lavage or simple

catheter brainage do not fail to look for some obstruction in the ureter or for a po sible complication in the form of a pyonephrosis or a peri

the institution of antiseptics has been so suc ce sful that it hould be given a trial before

jone i until atter delivery unless the disease proves rebellious. It is almost never necessary to incic the kidneys (pyonephro is) and rarely nee liul t in luce labor. In very bad ca es the latter may be done becau e recovery ensues y hen the uterus 1 emptied. He further says stone in the ureteral opening may ometimes be seen and extracted cystoscopically and such an examination should always precede any operative interference Pus in and around the kidney is to be treated on surgical principle

Williams recommend Rest in bed bland diet large quantities of water urotropin 5 grains every 4 hours If results are not obtained labor should be induced without hesitation as this removes the ureteral obstruction and allows free drainage from the kidney into the bladder. In nyelonenhrosis after emptying the uterus if the process continues it may be necessary to do a nephrotomy or even remove the kidney

Shears says about the same as William with the addition Catheterization of ureters and injection of anti-eptic solutions in the pelvis of the Lidney unless done by an expert ureteros copist does more harm than good. It is easier to carry out Pasteur's treatment in which distention of h 11 d1

boric acid solution are introduced very slowly into the bladder and the patient is requested to retain this for 20 minutes

Hirst says about the same as Williams and

the kidney pelvi

Herman L Kretschmer analyzes a series of 25 consecutive cases of pychiis of pregnancy two instances pyelitis had allo occurred dur ing previous pregnancies. Occurrence was most frequent during the first pregnancy no particular

toms included fever sweats pain in the back frequency and nocturia. In 20 of the 5 ca es studied colon bacilli were obtained on culture in 17 onfs colon baciffi in 3 only staphylococci in z only streptococci in a only diphtheroid and in

o megnanos surgical intervention is rarely if ever ju tified

Frederic Howard Falls in writing of the condition 535 that casarean ection hould not be practice I to avoid contamination of the uterus by infected urine except possibly in cases in which it can be demonstrated that the u ual antibody formation is lacking Dilatation of the

THE TREATMENT OF PYPLITIS OF PRECNANCY WITH RITENTION (INDIVELLING) URETERAL CATHETER

PEPORT OF A CASE

BY JOHN O RUSH BY MD LLD FICS MORIE MARANA L fr I Civilout I P at Disensaty C 1 g Leolo 4/h m 1 f 1 M f 1 H

obstetricians who require their patients to bring pecimen of urine every week. This they examine

ditions

ETIQLOGY

It I conceded that the colon bacillus is the

to the sugar albumin and casts whether or not there are present any organism of a pathological

How many men are called to see a pre nant

found gonococci es uprous

The symptoms depend fir t on the amount of framage and econd on the type of infection When the ureter is draining freely when there i

1 szed

In severe ca e when the draininge from the pelvis i impaired and there i damming up of

rapid decline que to the ail to te o Some patients complain of no pain observe | pun only when there was complete occlu ton of the ureter damning up the releas N | D of the patients

TREATMENT

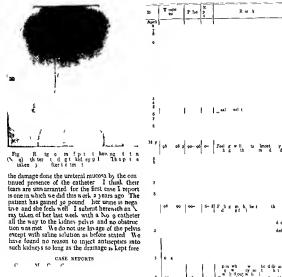
As to medication we have used internally

infection

DIACNOSI

Ası le from all other care every pregnant woman is entitled to close scrutiny of the urocental a gans at intervals from the beginning of preg u h se n many goo i RUSH





wreter and ordema of the mucosa of the bladder

who advocate the termination of pregnincy in the early month allude to the pressure being removed and in many cases to spontineous cure In those upon whom nephrotomy is performed they say way down the entire ureter and traumatize it severely and following such trauma we can expect to find strictures of the ureter for this torn mucosa will form sear tissue which will contract We advise the use of only the finest imported and the transfer of this work and the largest

TECHNIQUE

The patient is prepared as for any cystoscopy A Wappler operating cystoscope is u ed. As the

togenous infection only why should the left kidney be pared as is nearly always done?

THE RETENTION CATHFTER

tunty to study carefully the results obtained from retention (individing) ureteral catheters in pelitis and pelorepherius of pregnance. Our results prove conclusively that this method of retentient is on the preferred to all others. We have not lost a case. We have not read to we mintet a case of pregnance. We have not read to we mintet a case of pregnance. We have not read to the case of the present of the case of the cas

a pirate the urine as before and by gravity hu the left kidney pelvis with a ½ to 2 per cent solution of mirate of silver 10 per cent silvol a 1 3000 acriflavine solution of sterile water which 1 the best of all and remore the catheter from the left

The large catheter in the right ureter: left in the cystoscope removed and the catheter made fast to the inner side of the right to he with adhesive planter and its end inserted into the neck of a bottle or let drain into a pus pan. The nurse in charge of the case; i ristructed to wat he case is restricted to wat he case is restricted to the case is th

trong

In discussing this question with my several

T

we n gatt e for calcult Laboratory report Left unne was n g ti r ght ri e sh wed nume us pus c lf

This case was readmitted to the hospital 6 monthsafter birth of baby. There was an impacted wreteral calculu. Death followed ureterotomy

Case 5 Ms C about 4 ye of ag that 71

to her more

RUSH

Special attention is called to the fact that this catheter remained in the patient for 36 days without being removed. We have not had opportunity to make a cystoscopic examination in this case recently, but reports from Dr. Weldon are that she has had no recurrence of any kidnes or bladd r manifestations. This case alone should juty the adoption of catheter draming in weltus of overgrance.

It should be noted that after being discharged from the hospital this patient made an uneventful recovery vent to full term was delivered and nothing of note occurred

C SE 4 Mr I II II de 6 yea s ch it A 3796

t t dur eit u eir s not cathetenzed Cath eterzed pec m n from ight de sl s qu nuties lip s acl s enso clumps

D: T mpc: T has

D Tupe | Pile |



EDITORIALS

SURGERY, GYNECOLOGY AND OBSTETRICS

FRANKLIN H MARTIN M D ALLEN B KAN VEL M D	M age Edit Associate Ed tor	and enthusiasm
WILLIAM J MAYO M D	Chief of Ed tonal Staff	accumulate thi
MARCH 19	many quarters parently with p	
THE USE OF THE \RAY IN THE TREATMENT OF CANCER OF THE BREAST		ing the growth the application growth so that i rapidly than wi

HE question as to when to use \ ray therapy in the treatment of cancer of the breast has repeatedly been debated apparently settled and reopened and yet even today no unanimity of opinion exists. There should however be a general agreement as to the value of the \ ray as an aid in deter mining the operability of the local condition In all doubtful cases pre operative roentgeno grams of the chest and spine should be taken for even a relatively small cancer of the breast especially if it is of the scirrhous type may be accompanied by lesions in the lunes or spine or elsewhere of such a nature as to make an operation not only useless but in advisable O teocopic pains al o call for a pre operative roentgenogram of the affected bones

The uselessnes of the \ru vy alone as a curative agent in the treatment of cancer of the breast was demonstrated early in the history of \ray therapy. Reengenologists and surgeons alike being unwilling to abmidon it entirely the \ray was applied as a post operative measure in the hope that it would

destroy such small foct of cancer cells as might This postoperative remain after operation procedure soon became a generally accepted a of treatment and considerable confidence attended its use but as time cords of late results began to s confidence began to be shak is opposition was voiced from some even holding and ap ustice that instead of inhibit of the remaining cancer cells of the \ ray stimulated their requirence occurred est n more thout such treatment. The explanation of this phenomenon which natural ly appealed to most of us was that the \ ray treatment had not been efficiently applied that the treatment had been given by inex persenced roentgenologists who had not ad ministered a therapeutic dose so that an ir ritant rather than a theraneutic effect had been produced which acted like other irritants stimulating the growth to increased activity Unfortunately for our comfort in this view of the situation the roentgenologists scouted it and apparently demonstrated that this theory of excitation was untenable

While the matter was in this uncertain state the use of deep \ ray therapy was imitated with the enthusaism which invariably is excited by every hope that a new cure for cancer has been found. Deep \ ray therapy was at first extensively employed in Europe later finding its way heistatingly and timidly into this country. Considering its history one could only wish that it had been accepted with even greater timidity for before scientific means for accurately measuring the current means for accurately measuring the current

cre s d t mp rature 00.4

The patie t was g n full gl f at every 30 m t s and kept n bed so p and milk. At 3 th p tents t mperat re h d go ut t 13 h was

3 Catheter drainage is preferable to lavage with drugs, since the strent hof the drug used is mostificient to kill the organism producing the disease. It is my opinion that the passage of catheter by its dilatation of the ureter is what

CORRESPONDENCE

SUBCUTANEOUS EMPHYSEMA FOLLOWING LABOK

To the Editor Your issue of J musty courts as the report of an interesting case of subcutaneou emphysema following labor by Dr. Charbonnet

CONCLUSIONS

method of choice

ushi ha its vintly of

appeared in the 1 by 10 m No 4 p 26 I of the City of New York vol m No 4 p 26 I took occasion it that the to make a thorough search of the literature and presented; this communication an analy is of 77 cases the first of which was re

c trag du 1 g labor h ve been publi hed s nec tin n and mv coll citon r l' r d t. It i a v r, d ge ous procedure for any writer to claim th 'h s search of the late ature f is t. d cl se imlar ca sentere is alway ome on question such a statement the contax v the contax v to c w Kosawa W D

Awa kCo

Loss of the buccal mucosa may not mar the appearance but can prevent the separation of the jaws while an ectropion of the lid or lin is both unsightly and a functional handicar The scar may be depressed rough discolored uncomfortable painful itself or the source of a causalgia. It may harbor a subacute infection or be the site of recurrent fissures or excorna tions and it is not infrequently the starting point of cancer It may directly fix joints or tendons retard growth or distort the growing

The surgical correction of any of these con ditions except the keloid is a robbing of Peter to pay Paul process which consists in the removal of as much of the scar as 1 prac ticable to be followed either by further dis placement of the surrounding tissues or in a transplantation from a distant site complete removal of all but very old scars the displaced tissues will if unrestrained return to their natural portions so that the orig inal defect will be approximately reproduced This must be considered in calculating the

amount of replacement material necessary The different forms of filling include the Thiersch graft the full thickness skin graft (both free tran plants) the sliding flap

the pedicle flap the pocket graft and the jump flap The latter consists of the trans plantation of a flap through some intermediate carrier as from the abdomen to the finger and from the latter to the palate Avulability of ti sue appearance and function are the considerations that will chiefly influence the choice Availability is at times the most com pelling consideration. A scar on the check may leave a large choice but when the fore head neck chest and upper extremities have all been deeply burned then the sources of material are much more limited

Granted a choice of material then appear ance in one ca e and function in another may determine the selection. When appearance is the prime object the following facts should receive consideration T It is impossible to foretell the final color

of a free skin graft

The further we go from the face to secure a replacement flap the more the skin will differ in both texture and color

In regard to the above points however transplanted epithelium will take powder and paint which epithelialized car will not large defect may justify a disregard of skin texture that would not be acceptable where a small area is to be replaced

2 Even with the greatest of care losses can occur in the full thickness skin graft that may be replaced by scar more noticeable than the original condition

The donor site must be bidden or sus ceptible of such treatment as not to seriously compromi e an otherwise happy result

Because the facial muscles serve both function and appearance their cutaneous rela tions must be considered. Over the cheeks these muscles are covered with fat which gives a more or less rounded smooth contour and in filling a surface defect here subcutane ous tissue as well as skin should be furnished In the hps chin and evelids these muscles lie immediately beneath and in places are at tached to the skin. Here surface loss is best re placed by free skin grafts applied directly to the exposed muscle surface with no inter vening areolar tissue A Thiersch graft draped over a wax form and sutured in place does this very well

When the size and location permit facial scars are best replaced by sliding in the sur rounding tissue but in the neighborhood of the hps hds or alse this may not be practi cable on account of the noticeable distortion that would follow. In certain in tances this sliding can be best done in steps excising a

used at any time during the treatment were decised many serious catastrophis occurred. In the treatment of breast tumors perhaps the most serious complication which followed the use of deep N. ray th rapy was fibrous of the lung on the side treated while pleursy burns nausers and meurits added their burdens to the disconfort of the patient.

Theoretically pre-operative treatment of breast tumors by deep \ ray therapy should be of the createst value for whether it acts as a directly destroying agent to cancer cells or by causing fibrotic changes in the blood ves sels and capillaries it as it were smothers the cells in their me hes and prevents their growth and it would seem that local recurrence at least should be greatly deleved. That deep I ray theraps le an the size of the tumor as well as of the glands in the axilla and neck we have repeatedly seen demonstrated. That it has made a growth operable which by reason of its size and the involvement of the skin and glands was inoperable we have all o seen demonstrated but on the other hand we are obliged to say that we have no proof either statistically or clinically that deep \ tay theraps delays the recurrence of the growth in those cases in which there is a general lym phatic involvement in the surrounding skin a site where the therapeutic dose of \ tiv might be hoped to have its greatest efficiency

The applicability of the \sqrt{xx} in cancers of the breist seems therefore to u to be an open question. Its effect upon modeed gland is very straking and is decidedly beneared but on the skin the theorepeutic doss. I all that can be used with advantage and what that advantage is has not been all outely demonstrated. We are lar from being mehmed to give un\sqrt{xx} is treatment in these cases but we are convinced that the treatment has not yet been standardized and that we should continue the offert to find some theorypeutic.

method of application of the \ ray \ -prc opcratine or postoperative or both with his hor with low voltage \ -that will contribute even in the slightest degree in promoting the comfort and lengthening the life of the patient

THE DEEP SCAR

SCAR is the epitaph of lost itssue the problem of its removal should be approached as one of restoration and not of simple excision. Any los of the body surface dieper than the full thukness of the sakin will spontaneously, do e largely by drawing the neighboring it sues into the defect and partially by the final scarring and epithdisa tion of the very much contracted granular area. The use of the scar will indicate how much the latter contributed to the healing but the elasticity of the soft structures may mask the amount that came from the contigu

This shiding in of the surrounding parts fixed by the minimum of soar would seen to be nature a method of choice. The new soar borrs no essential relation to the size of the loss but indicates the limit of it size diplace ment in the particular ca. A comparatively large defect in the hip or chick which e with a very small, car but with an inverse amount of diplacement. The arm is true of loss in the tongue velum fauces and of the flexor and extensor surfaces of joints. Where how ever the horders of the defect become fixed to the bone as on the forchead scalp or tibia bething in vy be cl. if by sear which is a very much slower proce.

At t the wound has healed rebef may be sought to improve function appearance or comfort

I depress d scar on the forehead a facial blemah but does not interfere with function



stip of a scar and obliterating the gap be suturing the borders. The operation is repeated until the scar is reduced to a line. In the final step the remaining scar should be denuted rather than excised and the undermined surrounding-kin borders approximated over the retained scar with buried sutures of fine white. Si

I veision and approximation of the borders either by one or several operation is much more satisfactory when the sear or the exciton runs in the direction of the cleavage line of the skin. On the neck, sears that go counterwise to these lines are apit to spread after any plan of treatment except the in section of a flar.

Comparatively large flaps can be turned from the cheek e necially in lay wrinkled faces with immediate obliteration of the resulting defect. The whole forehead can be replaced by full thickness free his graft and with great care and some luck the final re ult may not be very objectionable. However the removal of a transver e fluo from the upper part of the mich will usually leave a less no ticeable scar For covering the flevor surface of tomis or other surfaces on the limbs or body either the pedicle flap or the full thick ness skin graft may be the more appropriate plan I or the hands and particularly the lin ing of finger clefts the full thickness free kin graft has many advantages except where the exten or tendons are bound in the car Then a pedicle or a thin pocket flap from the ab

domen will give quicker and better function When the scars are the result of very extensive burn the free skin graft is usually a neces any choice.

The epithchal lining of the checks hadoor of the mouth faure pharinx no e and lid is functionally as important as the external skin. In herling after a los of the mucosa at any of these sites the resulting defect i covered over by approximation of the mucous borders. The causes an obliter atton of part of the actual or potential mucous lined cavity. To restore the contracted cavity its essential that all car be removed and the diplaced it sue, theretied before applying the new epithchal lining. For the but call labals and sublinguals sulfer the infay

There's he graft with an allowance for 60 per cent shrinkage is usually the best plan while for hining the not or the body of the cheek a mucous or kin covered flap is more appropriate. For stricture of the fauces or phatyria a combination of the emas supplement each other. For hining the lid one or the other may be the more expeditious plan in a particular case.

The whole subject may be summed up as follows I orth or pirtual removal of the scar liberation of the diplaced parts and filling of the defect are the essential steps in the operative trictment of a deep scar. The care with which the plan of operation is previously worked out will largely determine the quality of the result. V. P. BLAIR.

MASTER SURGEONS OF AMERICA

FRANK BULLER

NABLE to subscribe with a free conscience to the articles of faith of the Anghean Church after years of preparation for its munistry Charles George Buller descendant of an old Devonshire family emigrated to America in 1831 and settled on a farm near Cobourg Ontaino. Here he married Frances E Boucher the daughter of recent English colonists who also had taken up farming and to this couple were born six sons and two daughters.

The fifth child Trank Buller the subject of this sketch was born on May 4 1844. His early years were spent in the healthful and beautiful country bordering Lake Ontaine but at the age of twelve the boy moved with his family to Iowa where his father thought would be found better opportunities for his growing family. Here the lad tasted fully of pioneer life as he watched the virgin prune laboriously brought under cultivation. In the end the venture was successful and the father returned to Cannda leaving a fine farm in the hands of two of his sons (one had deed in the West) while the three remaining boys prepared to fit themselves for professional careers.

Two of them adopted law but Frank chose medicine. At the age of sixteen he was taken into the home of his mother's brother. Judge Boucher at Peterboto Ontano. Here he attended the excellent grammar school and during the summer holiday's learned dispensing and made himself generally useful in the office of Dr. Burnham a leading practitioner of his day.

Dr Buller graduated from Polics Medical School Toronto in 1868 and after spending a year in general practice in Michigan to add to his funds proceeded to Lurope for special work in connection with the eye and ear Altogether about seven years were spent abroad

Just how Dr Buller's studies were mapped out I never heard but his plans were wisely had He first directed his steps to Berlin where he attached himself to the clinic of the illustrious von Graefe. The great German's life was nearing its close—he died July 20 1870 but the joung Canadian touched hands with him and began his studies under the inspiration of his genus. During the Franco-Prussain war Dr Buller acted as volunteer assistant in one of the German military hospitals but on the cessation of hostilities returned to Berlin to resume his studies which included work in general pathology under Virchow and in physiological optics under Helmoltz recently arrived from Heidelberg



A tall shapely body was crowned by a massive well formed head. The forehead was broad the skin clear the features sharply defined, and the eyes keen and penetrating

His manner was brusque—a relic perhaps of his Western days—and he was sometimes impatient and quick tempered but these qualities which occasion ally finghtened and offended but lightly overlay a disposition that was essentially kindly considerate and even affectionate. Self reliant by nature and fortified by his thorough training he worked with an assurance that engendered confidence. The impression that remains is one of strength and decision yet of innate refinement.

Dr. Buller was filled with what for want of a better term, we must call the medical or nursing instinct, and he was extremely conscentious in the discharge of ms duty toward his patients. Surrounded as he was in his early days by nurses and as istants with little or no training in oplithalmology, he give fully of his own time for dressings and local treatments. It stands to his credit that he spent whole rights in nursing cases that were threatned with loss of vision. In litter years when times had changed a load of detail work was carried that might have been lightened by others with every regard to safety, but his patients felt alway his solutions.

He never appeared to such advantage as when dealing with difficult cases and especially with path ints who had been abandoned by others as hoptless. Over the solution of the problems of these people he worked with all the dogged perses a rance of his race and resourceful was ever striving to adopt things to their special needs. A striking feature of Dr. Buller's nature was his marked independence and originality of thought. He was impatient of and did not hesitate to break through the more rigid conventions and tenets of his day, when he found them embarrassing.

As an operator Dr. Buller was effective with more than the average degree of dectiony. He was equally at home with plastic work and major operations about the orbit as nulti muscle work and operations on the flobe. His surgical tech nique was advanced for his day. Asepsis and anticepsis were unknown at the Royal London Ophthalmic Hospital during his period of interneship—there was indeed a peculiar apathy to Lister's teaching by his London Contemporaries, but Dr. Buller was taught by B. B. and by Shepherd at the Montreal General Hospital and his bit long work in operating rooms devoted usually to general surgery kept him threast in this field.

His enthusiasm for his work was unbounded. He liked to discuss difficult clinical problems and he was always deeph reterested in hearing about any innovation. No one he said in one of his addresses can afford to rely upon the knowledge he has gained at college to carry him through life hence the necessity for new books every year not many but a few of the best and also at least

In 1872 special studies were continued in London where efforts were also made to amphily the Lnowledge of medicine and surgery gained during the year of general practice and at the German nultiary hospital. Having passed the examination for membership in the Royal College of Surgeons Dr. Buller was appointed house surgeon at the Royal London (Moorfield 3) Ophthalmic Hospital in this institution under Bowman Critchett and Hutchinson and in the compring of Nettleship and of Gunn he gained that intimate knowledge of the operative and postoperative treatment of eye conditions which he constantly emphasized as indispensible in the training of an ophthalmologist.

But Dr Buller added something at this time to English ophthalmic practice in return for all he received. He had gained a fine master, of the ophthalmoscope in Berlin and it was from him that his Linglish colleagues first leitned the full use of the direct method of examination. It was also during his Moorfield days that he introduced the protective shield that has ever since been connected with his name.

In 1876 practice was begun in Montreal. In taking this step he was influenced in a measure by two young countrymen destined later to shed lastire on Canadian medicine. Francis J. Shepherd and Wilham Oslev whom he learned to know in London. These two friends did him the great service of putting him in touch with the leading practitioners of Montreal. Permission was given him to establish an ophthalmic clinic—the first—at the Montreal General Hospital in which at that time the entire clinical teaching of McGill University was carried on. The older men, wil of or the mot part had covered the whole failed of medicine were un willing at the outset to relinquish their ophthalmic cases and reserved their right to treat them but in a very short time Dr. Buller's superior training and knowledge brought all the eye patents under his care.

Teaching of his subject logically followed the succe stud development of his service. The value of his clinical teaching and the importance of ophthalmology on the high proportion to the

vas founded in 1883

neral Hospital to take

charge of the ophthalmuc chaic at the new Royal Victoria Hospital and this post with the appointment at the university and numerous charitable institutions he held until his death on October 11 1905 from permittion anarmi-

Dr Buller was the first modern ophthalmologist to establish himself in Canada. He had the whole country to him elf and soon acquired a practice and a reputation that could hardly rgain fall to the lot of any man in the Dominion After a lapse of nearly two decades his name lives on as a great medical tradition. But apart from the fortuitous circumstance of entering a virgin field and

But apart from the fortutous circumstance of energing a right head apart from his master; of his subject Dr Bullet possessed the qualities which so to make a successful practitioner of medicine. He had a commanding presence

talks his students gained a knowledge of ophthalmology that helped to complete the splendid practical training for which McGill University has been noted

But perhaps a greater good came through the influence which he everted upon his many assistants. The real specialist he said in one of his University addresses must be evolved by years of patient toil in clinical work after he has become a ripe scholar replete with ginerid expenience. It has been already pointed out how fully he himself labored to meet these conditions and he ever held these ideals before those who consulted him in regard to taking up ophthal mology as their life work. Practically all his disciples complied with his stipula tion of a four years medical course and a minimum of two years special study after a period of training in general medicine and surgery and promulgated as these views were throughout his entire life one feels that Dr. Buller's was one of the strong influences underlying the development of our higher requirements for modern practitioners of eye surgery on this continent

W GORDON M BYERS

two medical journals these last to be carefully scunned and an index made of all that eems u cful and princtical as they come in Such a system of ready reference will prove invaluable in the effort to keep up with the times. With a good working knowledge of I rench and a mastery of German he kept himself fully conversant with the developments in ophthalmology. His mind was singularly open—absolutely plastic to the end of his career. Let us pray for an open mind was one of his maxims.

From a busy practice time was found to make seventy six contributions to the hierature of his subject. These extend over an exact period of thirty years. They are the work of a teacher and practitioner rather than the product of an original investigator. From the outset of his career Dr. Buller was too busy a man to speend time in laboratory research but he was fully aware of the value of laboratory work and encouraged it in every way he could. As a result of his early grounding in general puthology, he was able to follow intelligently all the advances in this department of medicine and to appreciate the methods which produced them. His writings then are almost entirely either diddetic or chinical in character. The former were never more compilations but were given out only after an intumate personal experience.

His clinical writings constitute the largest and most valuable pirt of his work. These expressive as they are of a mind that had a truly scientific outlook are complete thorough and satisfying From among them one may ite his article on. Anomalies in the Lunction of the Extrinsic Ocular Muscles and his article on. Methyl Mechol Blindness written in collaboration with Dr. Cases Wood.

A sub class of virtings desirbe what may be called practical efforts to better ophthalmie practice. Included here are his papers on a protective bandage to the eye an improved trial frame a double needle to facilitate the discussion of secondary citaries temporiry ligation of the canadiculus as a means of preventing wound infection in operations on the eye eye; ion of the eyeball and some alternative operations (modifications of Mules's operation) and skin grafting in ophthalmic surgery.

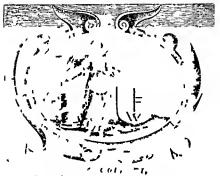
But important as these contributions are one cels that the value of Dr Buller's life lies in the high standard he set and maintained for ophthalma practice in Canada. The advance in ophthalmology marked by his advent can secrecly be vi urdized at this time. Before his coming the subject was casually taught by the lecturer on medicine and sargery. What their knowledge of the subject was can be gleaned only by a perusal of tectbook such a those of Lawrence and of Mackenzie fine as they were in their day. With Dr. Buller came the ophthalmoscope the perimeter accurate refraction work a thorough knowledg of muscular defects an appreciation of the never pathology as applied to the eye and above all the modern scentilic outlook. From their direct clinical

EXERCITATIO.

ANATOMICA DE MOTV CORDIS ET SANGVINIS IN ANIMALI.

BVS,

GVILIELMI HARVEI ANGLI, Medici Regii, & Profesforis Anatomia in Collegio Atedicorum Londinensi



Sumptibus GVILIELMI FITZERI

THE SURGEON'S LIBRARY

OLD MASTERPITCES IN SURGERY BY ALLIED J BROWN WID FACE OMARA

HARVELS CIRCUIATION OF THE BL HIOLCH truly not a su gical work	-		;	
	_	hg		

- ng he he ity st Calen hal sho n that contrary to the theory of

studies that there were communications in the lungs

time the discussion had been far iv philosopm at

r stored Con reciv he describ a hat baj len then the north 1 compressed. He had the sex put on by a ymg. Here then we have eviden e of 1 o kirds of death tinct on from deficiency and sufforation from exces Example for had

> de Th rom

Tanks so had much ment salvol m publich d by G Nove on

tive a atomy and experime 1 1 3

REVIEWS OF NEW BOOKS IN SURGERY

A BIOGRAI HY of William Crawford Gorgas has been compiled by Marie D Gorgas the rife of the great sanitarian with Mr

fever after 3 months of experimentation in which United States soldiers were used as subjects instead

a man whose contemp raries were agreed that he

not entirely consumed that the Reed theory was correct but he said If it i the mosquito I am going to get rid of the mosquito I to decided he could more easily control human beings than the mill ons of mosquitoes and toward that end he

- mortality ted States

The book closes with an account of the death of

Gorgas which came in London where he had

The chapter retaining to the childhood and early environment of Gorg s 1 till of interest. From his serilest of so Gorgs was ambitious to lecome a soldier. However efforts to gain entran e into West I only were truthe and although he had no

1

~

the later

War be

dit ons particularly vello v feve were ramp nt. The im proved conditions which resulted from Gorgas vork caused typhone dysenter van 31 kg. 3 seasons to disappear and whil the nat es had acquired an intimant vto vello fever of this from that disea e er stimulated by extensive immigration from 51 in following the Spanish American War

The e in the boggraphy interesting accounts of the saints aims who discovered the cause of yll w feve Dr. Carlos Yuday of Havana who me Sir read a paper in which has a circle that yellow fever w is a assimited by the st gomps mosq it to which it has a few days a medical passion which it has a few days and the saint and the

man of mode to n

home and abroad

14DH 2 (C

Willia C * Go as II L vp " By M D
Go ra ad Burto J H d & G d C y \ k Do bled y



AMERICAN COLLEGE OF SURGEONS

ADDPESS OF THE PRESIDENT

By CHARLES H MANO M.D. FACS ROCHESTER MINNESOTA

FTER a wonderful week of clinics and the discussion of questions pertaining to hos pitals we have now come regretfully to the closing might of our Congress As we look back

conference There is always a certain amount of lay interest even without the public meeting

Under the administration of Dr Ochsner the College has had a most successful year Our treasurer's report shows that we have added \$10 000 to our endowment which now approxi mates \$637 000 Thi sum added to the value of our buildings brings our assets to more than a million and a half Ours is a big and growing

division of fees are carried on by but a few of the

present we are spending a large sum in attempting to improve not only the standards of surgeons and ho pitals but the surgeons and ho pitals them elves We have not had to exceed our income but the work within our scope demands that we should . d non

rapidly กทักบทา

antee f

College A large endowment would only en courage extra agance and additional money

on gives innotmation concerning the College to young medical men. To many at the period

unethical practice. The junior candidate group hopes to steer them past the rocks. It may seem like taking the mote out of our brother's eve when all of us know that there are men in the Call ah

skilled staff will have the material and the refer ences so well arranged that we shall be able to

Some of the e were charter members whom we thought woul I help the College

Doctors who work alone as most do are unfortunately individualists Tew of them devel op that respect for the other fellow's opinion which teamwork and group medicine engender They are apt to become emotional and intense In their attitude toward this College they do not envisage its grand future

D DOUGOOU with Dr Codman as chairman Our ectional meetings held throughout this country and Canada have carried the work of the

Of the 6 582 members of the College all but 2 were recommended by the state committees In two states the Board of Regents made it possible for the committees to accept certain A CIREFUL survey of Buerger ' rec at mona-

ROUVIFRE in Inatom e Aumaines has dis

store or more of years are have tabelt in the tect of gapgrene and all ed cond to be in a stereo typed was little having been allel to our base knor l dge

Corre 15 years ag Buerger began 1 mine on the subject of throtobo angutis oblite ans an I soon affery art other men b can reporting c ses and referring to Buerger's study and theory The pres ent volum describes a di tinct pathological and clinical differentiation of the vascul ed seases of the extremits

The author approaches his subject with a stuly

reviewed as a whole

regions into a systematic v hole car be accome usued b) sup fem ntary in truction for the gr duate it is unnece-sary

The press ork is unusually good and the illustrations almo t all one and are of exceptional fa u if tmly

stud I ta

illustrate the points in que tion it is of sure to is so confusing and difficult to understand as that dealing with the blood we seld since the m h n m of control or ves el tonicity has only

hierarare the thot of capillaties as d cribed by Krogh Mueller and oth this of stal i aportance in a clear understant rg of this most complex subject

Buerger presents all the available miormat on on the anatomy the phys dogs the part ology and the diagno tic symptoms of blood ves el disease morely p

Tills old favorite volume by Whitman on or those he sure ry has reached the diemity of a seventh elition and its populatity i wil de ~) It would be he d if not imposible to

Hung on Descritor T pograph FAC THE

THE C CENTS IT SET OF THE F MITS MICE I

International Abstract of Surgery

Supplementary to

Surgery, Gynecology and Obstetrics

EDITORS

FRANKLIN H MARTIN Chicago SIR BERKELEY MOYNIHAN L.CMG CB Leeds PAUL LECENE Latis

SUMNER L. KOCH Abstract Editor

DEPARTMENT EDITORS

DEAN D LEWIS Gen al Surg ry CHARLES B REED Gyn ology and Obst i LOUIS E SCHAIDT Genuto Umpary Su ge y PMILIP LEWIN Onhoped Surgery ADOLPH HARTUNG Ro mig molesy JAMES P FITZGERALD Surg by of the Eye FRANK J NOVAK Jr Surg by of the E No e and Th o t

CARL A HEDBLOM Che & Su gery

CONTENTS

1	Index of Abstracts of Current Literature	in	
IJ.	Authors	EXC.	
IIL.	Editor's Comment	*	
W	Abstracts of Current Literature	189 253	
1	Bibliography of Current Literature	254 274	

El cortal communication hould be sent to Frankla H Martin El to 54 East Er St Chicago Edit rul ad Bu liers Offic as 34 East Ere St Chicago III no s U S A Publi h sto Gr t Phitsin B life e Tou Blu Coro & Ha et acts St Co ent G rd a London W C

ı

members under the early rules. These were the cases of men of importance who felt humilrited at the prospect of taking examinations at their age and in their position. Ultimately however all fellowships will be by examination.

Being a democracy our college is only as good as the average of its fellows. In the beginning

Hospital standardization was a national devel opment from the fellow hip of the College. It was undertaken primarily to protect our Fellows against dishonest competition in a general hospital. It has worked out to the best interests of the profession and the general public. I deed the scheme is already before the lativ and receives

and join for the purpose of putting something into

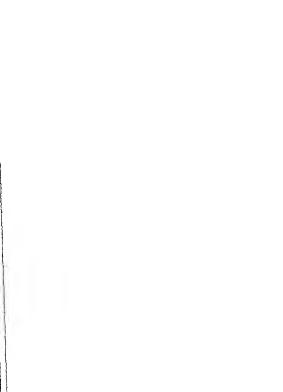
work the College is doing
Indeed the College now has so many activities
that it 1 ratified to a bulletin to record them to

American Conege of Surgeons we have an more

CONTENTS-MARCH, 1925

ABSTRACTS OF CURRENT LITERATURE

SURGERY OF THE HEAD AND NECK		SURGERY OF THE NERVOUS SYSTEM Braun and Its Co erungs Cran at Nerves	
Head			
ASTERT DES T Set e Infect ns of D atal Or gi	189	Exciero. W. P. The Su great Treatment of Men of gits. Third Comm. tion.	197
Eye		FRAZIER C II An t m s I the Recurrent Laryn geal Per e with the D scendens Noni	197
Oth ra Discu n on the Miscrosc py of th		MacHar to L P Ce bral Humorrhage in the Newbo	223
Li g Eye Leg F II The Impo tance of Test g the Ocular	189	Spinal Cord and Its Coverings	
Muscles in the Diagnosti D rect ons O Convor R The Dagn of Vertic I Devin	191	Westermorm & E trait ral Spinal Abscess	198
t ons f the Eye National A A New Operation for the C ect o	191	SURCERY OF THE CHEST	
of Squint	101	Chest Wall and Breast	
JOSEPH H Fyperie c s Bl phar plasty FREEZE C D I RAND G The Eff t i the	191	LEE B] and ADARE F E T numat clat Necro- ss I the Female Brea t	190
Brightness of th Pre-Expos re a d the S ro dung F ld the Breadth a d Sh p I		Trachea Lungs and Pleura	
the Color Felds [St mul of D ff r at Size EVANS I V A St da dized Test Object for V so I	103	MOORE W. T and LUKELS R. M. Ob ervat on n th T ch que of Bronch ac nv for Di ra es of	
I ld St d s Ele tric III m ton	92	the Lu g Henstow C A The Su g al Treatm at of Acute	199
Eat		P im n ry Abscess a d Chron c Pulm ry S ppurati n	209
M G US R The Experim tal Ba ! Theen on Vest bula F cti	192	Baune A The Su gical Treatment of Pulmo- n ry T b cul is on th Basis of Experi no f	•
DE KEEIJN A d U ESTE OR C Laby in the e C mpe sat ry Eye Positi n 1 Pat ts	193	the U verity S gel Chaic in Mu ch from 9 8 t 92	20
Noze and Sinuses		BEZA ÇOY P and JACQUELIN A Bilateral Pa tial Po m thoras	20
:		A man H H L	
FIRST E The Correct n IS ddle Noses Milli Saw Scorr S Tuler H d Others	194	E	
D seu s on o A soph ryngeal G owths	94).	20
Mouth			4
GOYDER F W Two P blems n ih T eatme t I	195		24
Neck		Heart and Pencard um	
B EIT R B Recu rent Got r	195	VOGT E The Roentg n Diagnosis of the Heart a d Thymus in Inf. cy	2
D E ERICH H Acuse Parathyro d to d Is Cl scal S grafica	19	SCHMIED \ Th Treatm tof Shrinking P rear dial Adh so shy E urpat of th Percard um	
ACASSIZ C D S A Ser es f Ca of T bercul Laryng u in Childr n	195	Esophagus and Mediastinum	•
Thouson Sir St C Laryngofissu e 1 Case f T berculosis f the Laryng KLLO Th Ca td Gland	196	LIANS F T A Critical Study S ggesting Pers it not Large Thymn as a Cause of Cyan s in New	
naco in ca equalit	196	horn I f nts	2



DRIESSEN L.T. Is the Fet n th Ut rus lng ed by Roc tg n.I. duatin of th M th	22I	SURGERY OF THE BONES JOINTS MUSCI	
Labor and Its Complications		Conditions of the Bones Joints Muscles Tendons	Etc
Voor E Ut an al Tamp n d DEPKEY H The Tr tm t of Ha t ta Pre- na	2	FARRHANA H \ T Som Affect f th Ep phy ses	29
SCHOUNDER L. The Te the tof Place nia Præ	22	Fr DEST L Th Unl lyng C e in th Patho ge sof R Lets	9
Puerp num and Its Complications Pfil		WYMAN E T and WEYMULLE C A A C I fr th T atm nt f R: ket with the W ry hapo Ou 1 Lamp	9
		Hass J Roe tgen Pay Tre tne t of T bere l s of the B a I Jon 15	3
l clamp a		Mungay J T Adam win Ep th 1 om	3
(LUCK E The Imp rt c th De I pm t of Sep of P to of Placenta Reta od After		HIM G Myo t I feto Burtern T H a d Harries D J White My	1
Full Te in Deli 19	7	I ma f the Radu Jessenen S fhe R ults f C servi e Tr t	3
Bo carpt H I to rel Tet us Philippe M II R time P I c E am i a Du	3	me t fT lercul us Sp ndylitis	231
igth I ero turn	23	HERMAN A Observat up n an Anatomical t at on of the Lumbo c al J t	3
Newborn		Part cular R f en t Its S gr 1 Forms	
I VANS E.T. A.C. tic 1St. ly Sugg at a Percentent Lary Taymus a C. of Cy no New born Infa t	10	Surgery of the Bones Joints Muscles Tendons	50 Etc
VACHA IR L P Cereb I Ham tribig in th	-	Spirzy H \ 1 M that in O thop de Sug ry	23
N wborn	223	OPPLEBERG A Seven Ca es I Arthr pla ty	23
Kewe y R L J Duod al Ulc nd M la No torum	4	Asrcove G Th Funct n l Res lt f A th d a of th Should Joint f r Pa ly of th Delto l	3
GENITO URINARY SURGERY		Versuetter H a d Oracon V The Treatm to the Carp I G gion	233
		LOVETT R W d BREWSTER A H The T t	40
Adrenal Kidney and Ureter		ment I Scobes by a M th d Diff nt f m That U u lly Employ d	233
PÉN TE J AC mp to St dy of the Le [the L d K d ys P p al E lamp d f L P m tal to ys K d d th R bbt A Ess y the Fath g h s f		KINA Stequent R pot of the Teatment I Structural Sci at the Machaette Gn	-33
R bbt A Essy the Path gh s f		ealH p(l	3
Elamp IAF HI Th T		W so P D Th Teatment f D placeme t f	234
		Brown L T Th E d Re uls f Stab us g	234
	5	TA LOR R T F t O p the Optainfr	35
	5	Frings AH Aga the Oprt to Hill	5
CARO NJ d'Got tel A 5 Exp m tal		Fractures and D slocat ons	,
Bladd r Ur thra nd Pen s	6	SCHMUT A E perum tal J nt Fratu s Tle F bl m of O teo hond t D eca	35
STEVEN W E a d ARTHURS E Th F mal		T tm 1 ff ct e	235
G vn o N M D th rmy in th Treasure t E		STARR C L The Tr tm at f C mpou d F ac	
At he phretmy	27	Et I BERG I P TR s its the T tm tof Fretus Thr C sesad P v nto	236
Genital O gans		PETERSON H 1 A Cl cal St dv / Il is ted	36
HANDFIELD JO R M Th T tm t of Ma	7	Fra t with Spec 1 R Ie to th In ig B F rming Li me is n th Blood S rum	
M lianeo s	'	KANTE dRe lt f 58C ect 1 tob	37
Gns DH Th Pych lor call to sn € res	8	Bo Graft i N Un Log	37

INTERNATIONAL ABSTRACT OF SURGERY

ıv

MAR Idemathic Cyst f the C mitt n Bil Duct Also a Contribu on n the Plastics of the C mmon Ble Duct and Cholangiosto iv 210 202 FORRY W The Indivites I r the Op rat e JAFF II L. The Influence f the Supragenal cland ath Thymus II D ect F id e of T time t of tholel theres 11 R generat of the Inv juted Thymne F flow 211 L Do bl Sur r nalectoms in the Rat 225 SURGERY OF THE ABDOMEN Abdominal Wall and Demonatter 641 1 GERSTENBERGER II I and MARL S 1 Ultra at I t R v Therapy n Per t neal and GI nd I M scelleneo 4 Tubercul us of Lhill en Bar & G Th Diagnos s of Scute M dominal Ill n as a Child n 2 1 Gastro-Intestinal Tract RA I WITCH I M A Stat tical R p et Cor em A WELLS R T BEAL WA ine th Lat e I the Study I th Blood Lhem GILY R T ni Bras W A The Early Reconst n 1 Acut I of the f C stree estes on the toute todomen 766 20 z GYNECOLOGY 01 Uterna PRIVATE 5 Aprel Resect not the lat t e or Fire 1 Th Res II I the Victand 4d m Opera on 21 PRILLIPS I Ut one Ham rring 16 ut the Tim of the Cluna t t ** Hascnstat H Hamste m ith Dieru 23 Harries v II Operatio o Irrad i min Cases I 30 16 216 20 E I The 306 c Anas 217 206 Schart ex B F 1 5 mm ey of th Clim at Noth sun sults Me e leradus n of Cane of th Cervix 213 Diet 16 201 Adnexal and Pers Uterme Cond nont 2 4 THERER E. R & BRANDESS T TO P th 1 ET and Chn at 1 pects of O man I mos Liver Galf Bladde Pa creas and Spicen . IR Post & D F M at Bancous Lat c In liouxas M Thrombo s a d Imbol sm at the 108 Un eruty Gynecol g al Ch I Linch in the D Pbe 2.4 LatTe ty he is of Li er ão Funct o OBSTRIRICS Jeh otoc us CLREAN J F and LOCAE A W Cyats I the Lt ! Programmy and les Comp estions THE garow L O L e Abscess Aberies 18 th Lo r Lasex We keepstery A and Ison as I W L pe me 340 tal Blary Doneg ath Dg Al elim ty ۵ Not 0 f Fhal 2 0

Blood Nt gntplem is

serme Pf gn c f3

2 0

GAUDI O N M Diath my in th Tr tm t of T b cul Les: f the Bladd P rs ting		STUEBLER E and BRANDES T The Pathology and Cl m al Aspects of Ovarian Tum rs	21
After Nephrectomy	227	GIBBS D H The Psychological Factor in Enuresis	228
WYMAN E T d WEYMULLER C A A Clinic of the T estiment f Rick is with th M c y V por Quartz Lamp ROLLIER A H 1 th py T be culo is with Par	229	FISSER D a d SNELL, M The Teatment of Shock with Gl cos Infus one and In In You Berencest G a d You Wolfer K The D str b to ol Carenoma a I d cated by 10 008	25
ticular Reference to Its S gic I F rm	250	Autop ies at St Stephen's Hosp tal in Bud pest	25
		KAISER J H The Hereditary Occurrence of Ca cer	252
MISCELLANEOUS		LAMPRECHT I The Effect on Ca cinoma of De	
Cimical Entities—General Physiological Condition MULLICAN SIRW, SCOTT S. TULEY H. and Others	\$	c mpos tion P od ets Obtained by Fermentation ULLMAN H J The M agement of the I operabl Cance P t ent	25:
D scus n A sopharyugeal G owths	104	ounce a cent	25:
BREITVER B Pecur t Got r	195	Surg cal Pathology and Diagnosis	
Anatom cal Ab rm lit es of the C l I The Red d t Col n	206	BOARDMAN W W and SCHOONMAKER G D Phe is it trachlorphthale is in the Study of Li e Function	208
PHILLIPS J Utenn Hamorrhage Abo t the Time of th Climaeteric	2 5	Bayan G The Diagn s s of Acute Abd minal Ill ess in Children	211

INTERNATIONAL ABSTRACT OF SURGERY

VI INTERNATIONAL ABSTRACT OF SURGERY
OAZENE C D Th Caus a dP ev nion of Post operate Gas Pà sa Seronas J I. Th v ds c of Intr n Chaose Reschoal
PARTIN K its 1 38 Antisepte Surg sy Tr atm nt of Wounds and In feedbers 23 Expenses in The Importance 17 ting th it is less if Butters in the Blood in the Proposition of Special Information 46
Two Observations 40 Asserthesia Wester H W and Romains B F Col n c Asser- increas increas
SUPGERY OF THE BLOOD AND LYMPH SYSTEMS MERITA W R a 1 School, 4 J 5 cral Net a Block Angelbes 247
Blood Vessels Masov F C Blood Coardst on The Products a and 1 ev nt on of Exp numerial Th unboase and 1 ev nt on of Exp numerial Th unboase 244 Reenigracions Reenigracions D agnosts of the H a t nd 250
IN a Not 1 The Cases f Embel 5 Tw at the 1 throughab O The Cases f Embel 5 Tw at the 2 through the Case 4 through through the Case 4 through through the Case 4 through th
VAN DER HORVE L. A Cas of 1 u. a. Throm bosis of the Superso Ve a Ca u with a Fa or able C une 243 243 243
Blood Transfusion Rashowiter I M A Statutural Report Con era Rashowiter I M A Statutural Report Con era V the laier f the Study of the Blood Chen V th
Kadulm Irredut in Casts ! 6 Cresson R E The Therapeut Val e of Blood Tra thu : with a Report i Staty Eght Casts of Sepsis
SURGICAL TECHNIQUE Operatic Surgery and Technique Po toperatic e Surgery Political e with Rad m d do getty
of Bissellaneou sou Gasarr assess H J a d Wast S A Ultra voilet Ray Th raby in P ot neal a d Gi dula 245 Tub nei of Children

AUTHORS

OF THE ORIGINAL CONTRIBUTIONS WHICH ARE ABSTRACTED IN THIS NUMBER

Adar F E Ag L C D S 105 1 thurs I 26 11 210 V h I W 210 A plund G 232 1sten les T 80 B teman J h 213 Ba m n b J 2 B ancon F 200 B g Moy H oS B a dran W W 1 h Ť Bort L J 220 Bi R S 205 Bo gardt H Bram W A Bra dess T 2 8 B ster A II
B w L T 234
Brun er A 00
Bro C 13
Bu ket W C 0 Buket \ C o B I T H 23 B tl T H 89 Campb | I \ C C so W J 2 6 C leman R B 2 3 C ran J F 09 D el I 7 De B ck P D brunner II 238 D brunner II
D lo e \ 4
De klen A
De k b 23 21
D pk n II D et nch II 95 D ssen L F 221 D J S 43 Eagleton W P 19 Det neh II Exclude A Fit E 194 E nght J R E S E T C an J N 36 ot

Li bank II A T 220 Faill C 248 l'altın R 238 Ferree C L 9 Ferry G 40 Findly I 220 Indivi 229
Fr. P. A. 245
Fr. P. A. 245
Fr. P. C. 249
Frazer C. H. 97
Freberg A. H. 35
F. sch. L. 238
Gaud no b. M. 27 Gerstenberg II J 203 Gbbs D II 228 Gluck E ? Gold to A T ash Coulden C B 189 Goyd r F W 195 Gra es B 80 Ila dheid Jo es R M Harnes D J 3t Hartmann H 2 b Has J 280 Hedbl m C A Hirschb g H Holdfelder H 100 15 48 II Im G in G 31 Holeman M Holisman N 4

A 9 h A 200

J fie H L 225

J seph H 9

h 18 er J H 25

h 10 r J L 26

k H 11 35

h edy R L J

keyn G 5

Kill N H 27

k k N T 37

k k N T 37 kle n A 33 Algoo Lamp echt J

Lee B J 199 Lee F H 19 Lehm W Lelad G A Jr 217 Leskin n S 231 LF perance E S 2 6 Lindg en U 38 00 Lockha t Mumme ; J P 207 Loeit R W 233 Luk us R M 100 Manley O T 70

Ma warn R W W 2 8

Marbury W B 01

Marne D 202

Maso E C 242

27 Me ker W R 47

Meyer H W 200 Mih L 204 Miles W E 207 Milligan Sie W 91 Milligan Sir W 9
Moo W T 199
Murphy J T 230
Nassau C F 50
Neum U r H 3 Yew G B 45 OdeBeng \ 232 OF I'C D Or to V ĨĨ 243 233 Pelsse L 722 Petrs n H A 237 Plahler G E 250 Phillips J 13 Phillips M II Plass E D 2 a P U sson F 204 Porter D F 2 3 lorter a

Pringl S 2 4 Rahi witch I M 214 R nd G toz R bh n B F 200 R her A 250 Ro ing C M Schm dt A Schmeden V 20 Scho phoiz L 5 hol. 1 I Schoo make (D 208 Soft S 04 Sch nt B F Soft S 04 Sch ne H F 218 S ell M 252 Specht O 210 Speed J S 40 Splzy H 232 Starr C L 236 St ts R F 244 Steve W E 216 Stoldad I L Stuebler E 2 8 Taylor R F 235 Thomson Sir St C Thursto I O oo Tilley H 104 Ullmann II J 53 Ullmann II J 53 Vn der Hoe n L Vaugh R T 2 3 Versteegh C. 193 V pt 1 20 221
Von B e c v G 52 Von W lif k 252
W hi S A 03 Walz I P 2 Weltma Ò West born A 198 Wh tman A 231 Whitman A 231
Whitm A 101
U son P D 234
Winkel t n A 210
U) m n F T 229

BIBLIOGRAPHY

Su gery of the He d and Neck		> born	68
H ad	254	Mr ell nous	66
L) Ea	54	G n to-Unnary Surgery	
	255		
No ean IS u es	55	lde al kdøy d'Uret e	66
Mouth Pharynx	255	Bladd U thra nd Pe	67 68
V ck	56 56	Gen tal O gays Visc II eou	68 68
	30	anse in soff	08
Surgery of the Nervous System		Surg sy of the Bo es Joints Mus tes T ado	5
n- ^ ^	7	Co de s fth B a s f ats Muscl Tend s	fo
	57	Surg ev of the B nes Jo ts Mu le T nd ns	70
	257	Fra t res a d D locato	70
n, int t US	258	Surgery of the Blood and Lymph Syst ms	
Surgery of the Chest			
		Blood Vessel	,
Chest Wall and B e t	258	Blood a d T s lu n Lymph Vessels a d Gla d	73
Truch a Lu gs a 11 leura	82	Lympa Vesses a d Cm o	71
H art a d Penc rd m 258 (Eurph rus and Med astin m 258		Surgical Technique	
(Evoph gus and Med astan m	59		
	39	Ope to S m y and Techniq e P t pent e	
Surgery of the Abdomen		International Transfer of Williams	72
Abdominal Wall and Pe toneum	259	I fects	27
Ga tro-Intest Tract	250	1 asth	272
Le Gall Bladd P creas d Spleen	30		
Viscella eou	26	Physicochem cal Methods in Surgery	
Gynecolog7		Ror tgenol gy	273
Ute us	26 t	R dum	73
Adnexal a d I ri tenn C d ton	263	Visc IIa eo	73
Ext ro Ce talia	164	Miscellaneo s	
\I scellaneous	307		
Obstetr cs		Ch I E ties-General Phy I meal Co Iti	73
		C Bet I Myet ad It Ife	
Pr gnancy and It C mpl cat on	364	t ns D ctiess Gi tsd	74
Labor d Its C mplication	26 260	Sugnal P th I gy a d D g Ms	- 17
Puercerium ad Its C mpl t as	200	an Bratta erri for a read Y	

INTERNATIONAL ABSTRACT OF SURGERY

MARCH 1925

ABSTRACTS OF CURRENT LITERATURE SURGERY OF THE HEAD AND NECK

MEAD

Astériadès T Severe Infections of Dental Origin
(De 1 i t graye d'origine de taire) J de th 1923 xxiv 276

The author reports five cases of severe infection of dental origin

The first case was that of a young man who developed a swelling in the neck and submaxillary region a few hou safter the extraction of a tooth Three days late the neck was opened from the symphysis of the jaw to the hyord bone and a watery fortid and gaseous dehange was a causted with the same of the part of the party for the party of the pa

found

KELLOGG S EED M D

EYE

Grave B Butler T II Goulden C B and Others Discussion on the Microscopy of the Li ing Eye B i M J 924 H 755

(FRATE & cussion of the physiological aspect of microscopic find ngs in the living eye is limited to two features the optical section of the normal aqueous fluid and the optical section of the normal lens

N

In the third case Ludw gs ang na and gas gan grene of the left pterygomaxilla v region d veloped after incision of the gum over a wisd m tooth. Re cov ry foll a t b.

I c use is normal. To detect the relucency of the normal aqueous it is necessary to obtain the contr st between the illuminated beam and a nonillumi ated portion of the same field.

The refucency of the aqueous can be demonstrated by arranging the fild of h

EDITOR'S COMMENT

A NUMBER of reviews concerning various phases of bone and joint surgery in this mouth's issue of the Abstract deserve and embolism at the University Gyneco-

Combound Hart It o Pra

The persistent attempts to develop certain and ab olutely aseptic methods of intestinal anastomo-

vised by Fraser and Dott was reviewed in the An TRACT for July 1924 (p. 41) A symposium by Graves Butler Goulden and others upon the microscopy of the living eve

the stomach in the male in the particular group of cases in question. Hollelder's report of the

rectum (p 207) and the interesting report of Plahler and Nassau on the successful manage

current coue of the Abstract

•

2 Diffuse reflection in which light is reflected from any object that is visible

3 Specular reflection such for example as the reflection made by a blackboard which makes it impossible to see what is written upon it

۳

not be seen by other means namely minute in equalities of the surface such as changes in the superficial epithelium due to glaucoma and small irregularities in the epithelium. Reflection from the of these two muscles the optic axis must therefore

the muscle \inclu \lescort \in D

O Connor R The Diagno is of Vertical Deviations of the Eyes B t J Ophth 1924 viii 449

In O Connor s opinion the most common cause of the persistence of asthenopia after accurate correc

angle of observation

It is the specular reflection which is of chief value. This enables us to see the endothelium of Descemet's membrane and certain changes that take place in it.

The anterior capsule of the lens is not perfectly

of one eye 1 meant interference with binoculor yation for a period of six days or two weeks with a test of the balance every three days. Occasionally considerable heterophona is revaled in this way O Connor thinks that in such cases there are true deviations because prisms j rescribed on the basis of the patch measurement do not cause the appear ance of an opposite test measurement and classe.

tormly does an advancement or other shortening operation

1

estimate of the frocedure cannot be obtained from this report Thomas D Allen M D

Whitmi e A A New Ope ation for the Correction
of Squint V DI nt if S I 9 4 ixxy

Т

ŧ

b tik

general health has shown marked improvement

g th operation and their
g th operation and their

Joseph II Experiences in Biepharoplasty (Er f hru gen bet Bi ph r plastik) B i ki n Ck 19 4 cx u 5

To mb m

Lee F II The Importanc of T ting the Ocul r Muscles in the Diagnostic Directions 1m J Ophih 0 4 3 11 838

every cas and in most of them definite formed

tř ps majoraci n

pr rec wa

Central keratitis may leave permanent folding of Descentes membrane and occasionally also of Bowman's membrane

pathological it is important for the climitan to appreciate the range within which the reluctive of the aqueous fluid may be so it to be normal 's slight increase in the relucency occurs in various

the

ma cer sons that the tood d to

ı

m mh nhet er u 3 A.

te new fortinary clinical work

one due

1972 anc

6

meet.

Patient &

٠

rinthi-Patient f

Lesion f both p rt s superio e lab

Right side Left s de

11

3 Compensatory eye positions a Vertical Saccule

the and elicited in the caua reflexes are dependent on positions of the

reactions to rectilinear accelerations can be ob

evoked by the canals. However the findings do not by any means exclude the theory that the otolithic apparatus also may be excited by move ments The latter supposition has not been proved experimentally becaule the author knows of no method of destroying the canals and leaving the As far as the functions of the otolithic apparatus

are concerned Magnus concludes that all reflexes - It & from position are dependent upon them " tons of the head in space

The following table shows the results of an in vestigation made by the authors on a number of normal persons and patients

LABYRDITHINE COMPENSATORY EYE POSITIONS

pos 1 on 705 h n . No mal persons rees Degree 3 7 P tient A R 4 5 6 ñ ġ 12 13

B th laboranths without function Pat nt G a Right I by math without funct on Pat nt ff

3 5 Left laby sinth without fun t n Len n fift p is inf nor labymothi

In normal persons the authors noted that the degree of the rotations was very small and that in

1 3) can be ascribed to t of the utricle and succul respectively He snows

that the utn les are the site of or gin of the tonic re I to musculature and the symmetrical mve fise to

De Lieijn A and Versteegh C Labyrinthine Compensatory Eye Positions in Patients P oc R v S II d I nd 19 4 kvn Sert L ryng I

mt I tm As the obe t on of the ve tigal t 1,

t author reports two cases demonstrating these firdings

The method used by the authors for measurin these reflexes is described as follows

changed there was a totatory counter rolling of the eyes of 25 degrees In the authors opinion this proves that in examining the laby rinthing compensatory eye positions it is necessary to exclude tonic neck reflexes on the eye muscles

When only one labytinth was destroyed the results were analogous to those noted in experiments on animals. In the lateral position with intact

labyrath underneat! the accular macula hors zontal and the otolithic membrane pulling at the neory epithelium the rotatory displacements of m n tude In the opposite

rane press of the laby The pars ccu'e abile h semi te will is with

A par of speciacles without glasses but with two thin wires in the place of these is fixed before

d t 0.4 -

١

D

tissue a 1 mm 11 1 Ker surf

skin *kın cate of t articie

192

u in the organi

In cases with simple defects in the skin of the I d good results were obtained with the use of a sliding flap derived from the temple or th h 1 of la

to n the lorehead were extended to the region of the temple and then sewed in doubled so that the thinner skin of the temple served as a supplement to the consunctive

When the conjunctival sac was too shallow an attempt as made with sarying success to deepen it by suturing inlays of epithelium over a lump of tissue When in addition to the

L c more e I astic operations on the I is were carried out over provisional prostheses. The permanent prostheses were inserted only when it was evident that there would be no further shrinkage of the soft parts Smaller corrective procedures were seldom

Ferree C E and Rand G The Effect of the Brightness of the Pre Exposure and Sur rounding Field on the Beadth and Shape of the Color Fi lds for Stimuli of Oill reat Sizes Am J Ochth 19 4 38 vt 843

This work was done on the illuminated perimeter of 7 ft candles Wh te h! F as pre ext

employed visual ang widest and when the

necessar)

of the same of blue

With the white pre-exposure and surrounding field the size of the field was reduced as follows

Angl Angl Degrees	R d P cent	Gree P e t	Pic
3	6 g 6a S	? 5 0	50 6 55 3
0 17	75 4 84	34 2 6 5	86

With the black pre exposure and surrounding field the size of the field was reduced as follows

agl Res	Red Prcent	Gren Proent	Blu Prent
2	5 8	3 6	6 5
Į	3 5	5 1	1 4
0 5	3 5 9 8	71 0	73 5
Q 17	34 9	83 i	

Black as a pre exposure and surround ng field contracts the limits more for green while white contracts the I mits more for red and blue

The authors urge the functional testing of the retina as in field taking in preference to the obsective because (1) the earliest manifestation of d sease as a disturbance of function (2) the field represents the projection of the retina magnified in the direct ratio of the ser

ENG IT MID

Evans J N A Stand relized Test Object for Visu 1 Fields Studies Electric Illumination Am J Ophih 19 4 3 Yn 854

In an attempt to standard se all of the elements entering into perimetric work. Evans has devis d a tube with a cart ! slot for

celain t small at sect for

has h

EAR

Magnus R The E perime tal Basi fo Theories on I stibular Function Pot Roy Soc Med Lo d 9 4 xv 1 S 1 Lary g 1 & Ot 1 1

The author reviews the facts from which the theories of vestibular function have been deduced The following groups of reflexes arising from the labyranths and absent after labyranth e t m

> b On eves c Ga timbs

d On trunk 2 Reflexes resulting from posit on Otol thic 29paratus

r Tonic labyrinthine reflexes on the body musculature

a On limbs Utricle & On neck and trunk Utnele 2 Labyranthine righting reflex s a Asymmetrical Saccule b Symmetrical Utrick

in the midline elevates the firps and removes a large part of the hard palate and the posterior part

route of approach is preferred it is necessary to have free access. He favors preliminary radiation Orro V. Rott. V. D.

MOUTH

Goyder F W Two Problems in the Treatment of Cleft Palate B ! M J 9 4 615

Hr r ---

sides and the remaind r of the cleft can be treated whenever desired Marinew > FEDERSPIL MD

NECK

Breitner B Recurrent Golter (R zd sil ir n)
Il s kl li k sek 9 4 x 1 59

By means of the histories of six cases of recurrent

of sulfof me. hyposecreting and eutrophic hypersecreting gotters extensive resection. In cases of the latter type which are almost always those of young persons the operation should be followed by todgine therapy.

3 For hypertrophic hypersecreting giters all possibilities from simple arterial ligation to extensive parenchy matous resection in one or more stages must be considered.

Cml ed p h

might lead to a finished structure of the contributions of Burcher Weglin Sanderson Blauel and Reach Hellung and the son Eiel berg school were used as building stones. The newer work on the thyroid problem may be misdirected unless it is founded on the traities of others. Gent (2).

Dleterich H Acute Parathyroiditis and Its Cl ni cal Significance (De akut I ar thy dt u d thre kharsche B deutu g) B t kl Ch 924

77 511

In the coarse of his studies on the pathological nations of the parather oil glands the author found a case of inflammator, changes in one of these glands of the pathological granting of the

In e perments on dog and rits the author attempted to thow light on the question of the spread of inflammation to the parathyrods. The injection of bacteria into the thyroid failed to produce tree inflammation; phenomena but the in perion of 0 of turpentine caused thyroids in perion of 10 of turpentine caused thyroids. The period of the

Because of the extensive unatomical changes taking place evidative parathyroidits in the dog and alterative inflammation of the parathyroid glands in the rat exert an influence so injunous to the function of the parathyroid issue that tetany is favored if not actually induced Scale EMENT (2).

Agassi C D S A Series of C ses of Tuberculous Larynghies in Cl lidren J L 3 t l 5 Ol l 9 4 u 6 8

The occurrence of tuberculos of the larynx in children is generally beleved to be uncommon Eleven cases are reported by the author and in all but one the diagnosis was confirmed by finding the tubercle bacilli in the sputum In the on circ the

e

350 Jk Sallarked feature

As a rule the lesion is not extensive. Swelling at d redne's of the arytenoils with or vithout

the eves. A cross marked on the corner is necessary This can be made by cutting from the dried thin membrane that lies immediately under the h d sh II of

u fila moit

brush on the cornea to which it will

(ii iiis of the eve in

different positions of the head in space by measuring the angl m d h th th

me

ten i tanaki Orro M Rore M D

NOSE AND SINUSES

Eitner E The Corr cti n of Saddle Nose (U ber L ektur ed r ni m n) Med Ale 014 X 1000

Nasal deformities are usu lly corrected with tissues obtained from the patient's bod si h

tr *** -

ve COL me 165 14 For th

four hours It is then implanted without further preparation

Healing occurs p omptly and without reaction In a few weeks the amplant is firmly fixed and con solidated with the surroundi of

Bane (7)

Milligan Sir W Scott S Tilley II and Oth re Di cussion on Nasopharynge I Growths P oc Ry Soc Md Lond 1024 x 11 Sect Lary g l & Ot 1 5 Srtt

and carcinoma and chondrossecoma Three signs pathognomonie of pharingerl carcinoma are (1) recurrent spon taneous hamorrhage (2) recurrent attacks of uni lateral seromucous catarrh of the middle ear and (1) Pers stent otalgia without objective signs (inflammatory reaction

TILLEY spoke of the route of approach to nish-

es of the manifery bone and a por tion of the antenor wall of the antrum Cutting through the floor of the nasal septum in its anterior portion facilitates the exposure of the field of approach

Inother important point is rapidity of the re moval of the tumor The surgeon must get as nea the base of the growth as possible. When this is done and the excision is performed quickly the surgeon can control the bleeding. Talley favors larengotomy and plugging of the lower pharynx before the operation This preliminary step gives plents of slack in the cheeks as the mouth can be closed. A further a lyantage of lary ngot my is that the anaisthetist can keep out of the way of the

su gron WOODMAN cited a case illustrating the facility with which a growth in the upper part of the pharynx penetrates the soft spongy bone and

ed n years he has not

u en transferred for several ecks to a solution of to per cent formalin and 5 per cent n tric acid until it has gained the lesired pliability. It is then washed in water and kept in alcohol for at least half

a vear Before the cartilage is used a piece is cut to fit the defect and dis nfected again in alcohol for twenty

SURGERY OF THE NERVOUS SYSTEM

BRAIN AND ITS COVERINGS CRANIAL NERVES

Eagleton W. P. The Surgical Treatment of Meningitis Third Communication J im M

This article is an attempt to place the surgical

symptoms such as slight intra-ocular tension etc have localizing values

The treatment indicated is evacuation of the in fected fluid while it is still limited to the area ad

2 The perivascular cerebrospinal fluid spaces run beside the blood vessels of the cortex

3 The basal cisterna are divided by delicate

channel are closed
In meningitis of nasal or otitic origin the injection

aseptic meningitis

forces have time to muster before the micro-organ isms develop. The s cond type is caused by infection of blood steer origin in this surgery useless. It is the evidative type in which su gical measures are most useful.

When the middle i sea s invaded fusually by a

t ith occou usus postreptococcus

tococcus LNUT H HOLER M D

Frazier C II Anastomosis of the Recurrent Laryngeat Nerre with the Descendens Noni f im M 1 s 10 4 lrs 111 637 The author reports further toservations upon the

effect of subung the descendens hopoglosus to the recurrent largegal nerve in Tire of th seelve cases paralysis of one or both vocal cords followed thyrodectomy in one a gunshot wound and an one an attempt at much. One case was not it reasonate or grant of the case of the trainants origin. There were nine operation to not the recurrent nerve could not be found. In seven a studient ory stutier was effected. In the

implies paralysis of the intrinsic muscles of the larger that is the dilators the constrictors and the inter set tensor. As a result of loss of function in these muscles aphonia and dyspinear are the out standing symptoms. According to Jackson the terms complete or total paralysis should be a cd only when the abductors tensors and adductors of the larger as yet and adductors of the larger as yet.

phonat on and rarely sphonia Monolateral or buateral faraly is of the recurrent laryngeal nerve may be found in a patient with a good voice. It is only when muscle tonus is lost that aphonis is a ā _

Thomson Sir St C Laryngofissu e in a Case of Tuberculosis of the Larynz Proc Roy S Med Lond 1914 xvu Sect Laryngof & Otol 39 pressure and bony growth) as suggested by you

fixtula in the neck left by the tracheotomy tabe was slow to close and the wound in the larynx was slow to heal

In the discussion of this paper the following points were stressed

Persons affected with tuberculous do not stand operation well
 Tuberculosis mu t be eliminated before a

diagnosis of cancer is made. As cancer is more frequently expected tuberculoris is apt to be over looked. Octo 31 Rorr M.D.

Kiug The Carotid Gland (Ueher da Carotindreese)
Bet a Min Chr 1914 exxx 51

The author briefly reviews the experimental results and opinions concerning the carol d gland which are to be found in the hierature. The interpretations of the various authors are widely diver

difference was noted between the no mal animals and those operated upon. The senere no changes in

SURGERY OF THE CHEST

CUPST WALL AND ROPACT

Lee B J and Adair F E Traumatic Fat Necrosis of the Female Breast 1nn S g 19 4 1

The authors previously described traumatic fat

instance were there any hard availary glands. Care ful exci ion results in a permanent cure.

WHITAM I PICKETT M.D.

TRACHEA LUNGS AND PLEURA

Moore W. T. and Lukens R. M. Observations on the Technique of Bronchoscopy for Diseases of the Lune Language and against \$70

of the Lung Lo) | stop | 924 xxxxx o/y

but the latter is much more important from the

Cases of traumatic fat nec osi of the breast may be classed in two groups (1) those with tumors occurring within the breast and (2) those with

nn 1 m V n

choscope Hæmoptysis may be controlled by pack ing off one bronchus with the pack devised by Jackson

In the author's usual routine, the condition of the mucous membrane is noted and specimens are obtained at a preliminary diagnostic bronchoscopic examination. At the second bronchoscopic examination a thorough aspiration of the affected areas is attempted. Granulations about the bronchial

ability of an e pert microscopist a correct inter

us dat four day intervals

James C Brasnell, M D

ranged f m 30 to 63 year In the young nd the

H dblom G A The Surgical Treatment of Acute
Pulmonary Abscess and Chronic Pulmonary
Supportation J 4m M is 19 4 l. vs. 577

The influence of trauma in the chology uniquest ionable. In o per cent of the cases there was a definite history of a tama, in some of them the injury was severe and in others slight. In three cases the condition followed bypodermoely six. In further was no history of trauma. Pari 1 sun.

Postoperative pulmonary abscess may be simple multiple or multilocular and usually at some stage is surrounded by a zone of pneumonia Chronic abscesses are usually associated with pur

anasthesia

. ...

the third lumbar vertebra and e acuation of a

that Ballance a recent experimental work upon mon her's confirms the clinical work already done by the author

WALL LAINEY WELL

The diagnosis was traumatic hamatoma that

may be expected to be followed by functional recovery. Of course if the damage to the recurrent larrangeal nerve can be repaired and the nerve can be preserved in its continuity this is the operation of LOTAL F DIVES MD choice

direct pressure of bus

Complete recovery may be prevented by c ales cence of the coverings induration or a persisting serous meningitis

SPINAL CORD AND ITS COVERINGS Westerborn A Estradural Spinal Abscess 1d

A 18 year old man who had previously been has

at ın foramina

SURGERY OF THE CHEST

CHEST WALL AND BREAST

Lee B J and Adair F E Traumatic Fat Necrosis of the Female Breast Ant S g 1924 lur 670

The authors previously described traumatic fat necrosis of the female breast in order to establish it as a definite clinical entity. In this article they report twenty collected cases with a detailed case history of each

The process may be described as a disintegration of fat cells with the associated reactions of new tissue formation and the production of foreign body giant cells Traumatic fat necrosis occurring in subcutaneous tissue is generally recognized. This greatly resembles the condition under discussion but the latter is much more important from the

clinical standpoint Cases of traumatic fat necrosis of the breast may be classed in two groups (1) those with tumors occurring within the breast and (2) those with instance were there any hard avillary glands Care ful excision results in a permanent cure WILLIAM I PICKETT M D

TRACHEA LUNGS AND PLEURA

Moore W T and Lukens R M Observations on the Technique of Bronchoscopy for Diseases of the Lung L y goscop 1924 XX

In diseases of the lungs a careful physical examina tion by the internist careful interpretation of the

under a years of age do not employ cocaine

A bronchoscopic examination should never be made without a full equipment of instruments at hand A good hamostatic is bismuth subnitrate in sufflated into the bleeding area through the bron choscope Hamoptysis may be controlled by pack ing off one bronchus with the pack devised by Tackson

In the author's usual routine the condition of

1

ability of an expert micro copist a correct inter pretat o h m

used at four day intervals JAMES C BRASWELL M D

ranged from 30 to 63 years. In the young and the very old the dep sit of fat in the bre st is very rare Yearly all of the patients were w Il above the aver age weight and their b easts were correspondingly obese

The influence of trauma in the et ology is unquest ionable. In 70 pr cent of the cases there was a definite history of trauma in some of them the injury was se ere and in others slight. In three cases th four the

usnal

cases an

but four eases the nipple was retracted and the tumor was adherent to the deeper structures In no Hedblom C A The Surgical Treatment of Acute Pulmonary Abscess and Chronic Pulmonary Suppu ation J 4: If in 94 1 : 1577

Postoperative pulmonary abscess may be simple multiple or multilocular and usually at some stage is surrounded by a zone of pneumonia Chronic abscesses are usually associated with pur

ity of the erico-aryteno d joint and the presence of age was not complete and a few days later paresis

the third lumbar vertebra and v custion of a

that Ballance's recent experimental work upon most keys confirms the clinical work already done by the author

The surgical principle to be observed are similar

as those on ne ipheral nerves such implantations may be expected to be followed by functional

direct pressure of pus

SPINAL CORD AND ITS COVERIFIES
Westerborn A Extradural Spinal Abscess 1d
th of Scind 1924 http://doi.org/10.1001/10.10

A 35 year old man who had previously been healthy received a blow in the lumbar region of his back. Three weeks later an ab ce a spipeared at the site of the injury. When the abs ess was made old blood closs were found in the pus Drain

Complete recovery may be prevented by coales c ace of the coverings induration or a persisting s rous meningitis

The author reviews briefly also the few cases of

focamina

SURGERY OF THE CHEST

sion of the l ng o_ly the healthy portions expand the diseased portions remaining immobilized. Pedoja noted that a small volume of air lodges over the dis

eased area
These considerations seemed to justify a trial of
bilateral partial pneumothorax especially in cases

collapsed because it showed rapidly advancing

collapsed because it showed rapidly advancing lesions. Under this bilateral partial pneumothorax the patient's condition improved and to date this

demonstrated the profound effect exerted on the mechanics of the lung by relatively small amounts of air in the pleural cavity

ALBERT F D GROAT M D

. .

Marbury W B Acute Empyema Treated by the Combined Closed and Open Method M 4 J

The author calls attention to the advantages of the so-called closed treatment of empyema and reports a series of ases in which he used this method

A No 14 French catheter is introduced into the emptema cavity by means of a trocar inserted through an 1

Lare is taken to prevent the entrance of air into the cavity. Dakin's solution is used chiefly to liquely the thick put so that it will flow through the catheter easily.

This closed treatment is continued until the contents of the empyema cavity are less than 2 or The cathete is then shortened and left open and the trigation with Dakins solution is do e only

Vogt E The Roenigen Diagnosis of the Heart and Thymus in Infancy (Zur Knitk der Roenigen dagnosik des He ens und des Thymus 1 de ersten Lebe et) Fortichr a d Geb d Roenige

To determine the size of the heart in the roentgen picture the procedure of Groed and Altstaedt is recommended. In stillborn and premature infants calargement of the heart is usually noted in the roentgen picture. It is observed al o in cases of

congenital struma and hypertrophy of the thymus

For the treatment of congenital struma the
author recommends potassium todide in doses of
from 0 1 to 0 2 gm daily Under thi medication the
heart enlargement also disappears

Frequently

nodular pedunculated and columnar The asym metrical forms and the picture of thymoptosis are race Schirf (G)

Schredal The man 6 h

Shrinking pericardial adhesions which persist after acute or chronic inflammations of the peri

postoperative treatment

a 1

ESOPHAGUS AND MEDIASTINUM

Evans E T A Critical Study Suggesting Persist ent Large Thymus as a Cause of Cyanosis in Newborn Infanta Surg Gyr c & Obst. 19 4 33304 494

Evans reports two groups of cases from the Bos ton City Hospital. The first was a series of twelve cases of sudder death and death associated with

Sometimes the infection of the lung a undoubtedly embolic as suggested clinically and proved at autopsy but in most cases inhalation of infected

is made to locate the abscess after suturing the

U 1 Su clony wien this is possible Among the etiological factors the importance of aspirated gastric contents and teeth that have slipped

Co C 5 \$ fie t line ment be a surrected the mortality is bigh However when the operation follows a graded thoracoplasty and 1 perform a with the cauters at presents a belter prospect.

o thet i es the munipility of auscesses and the wide distribution of abnormal a gas so confuse the picture as to leave no alternative but expectant

Brunner A The Su gleal Treatm at of Pul monary Tuberrulosis on the B sis of E peri ence at the University Surg cat Clin c in Munich from 1918 to 1922 (Die hrurgische

Operative treatment is indicated when localized

As surgers as now being used in the treatment of pulmonary tuberculos s a report such as this meets

desperate choice

SCORE

Four different operative procedures are and cared by the type location and associations of the ab-

Preumothorax collapse when used for a central abscess draining into a bronchus is not only the safest but also the most satisfactory operation. In such cases the tendency of the infection to spread is reduced by the collapse whereas is multiple an ! especially in peripheral abscess that tendency is greatly increased Collapse must be maintained for

very great alue

The discussion is pres nied under the following headings general artificial preumotho az arti f cial smmobilization of the disphragm extrapleural thoracopia ty extrapleural pneumolysis tamponade opening and sealing of cavities tuberculous pleu ist and its surgical freatment and spontan ous tuber

coplasty

Drainage by thoracotomy is indicated for eccen m hec h h +55 16

Berancon F and Jacquella A B1 te 1Pa tial Pneumothorax (Lepn m th expert I blate al smult &) P se med T 1924 xx 755

Pneumothorax was or graall employed in the

Tf ьb ribs by

treatment

In all of these cond tions the object sought was

by mass we proming the m

pecually the meninges, are frequently infected through the blood stream

HEART AND PERICARDIUM

304

eased area.

These considerations seemed to justify a trial of bilateral partial pneumothorax especially in cases

roentgen picture. It is observed allo in cases of

severe acute tuberculous bronchopneumoma m

improvement has continued for six months Bulateral partial pneumothorax offers the best

SCHUTT (G) rate Schr*

eleventh of the lung area

By their immediate response recent cases have demonstrated the profound effect exerted on the mechanics of the lung by relatively small amounts of air in the pleural cavity

Arnent F DeGROAT M D

Marbury W B Acute Empyema Treated by the Combined Cl sed and Open Method M d J 5 R 1024 CTX 4 9

The author calls attention to the advantages of the so-called clo ed treatment of empyema and teports a series of cases in which he used this method

A No 14 French catheter is introduced into the empyema cavity by means of a trocar inserted th oh m

Shrinking pericardial adhesions which persist after acute or chronic inflammations of the peri cardium are well suited to surgical treatment. The diagnosis is not very difficult. The operation should consist in making a large thoracic window freeing the adhesions as far as possible and extirpating the pericardial indusations

Surgical treatment gives good results if the heart muscle is not too far deg nerated. After primary healing of the wound the resorption of the ordema and transudate must be promoted by suitable no toperative treatment

ESOPHAGUS AND MEDIASTINUM

Evans E T A Critical Study Suggesting Persiat ent Large Thymus as a Cause of Cyanosis in Newborn Infants S g Gy & Obst 9 4 XXXX 494

Evans reports two groups of cases from the Bos ton City Hosp tal The first was a series of twelve cases of sudden death and death associated with A --

ет са п

This closed treatment is continued until the con tents of the empyema cavity are less than a oz The catheter is then shortened and left open and the arrigation with Dakin's solution is done only once or twice in twenty four hours. When no soln t on can be mad to enter and no air escapes when the patient coughs the tube is removed RALPH B BETTMAN MD

ne a la ab ecurred

The two series were similar in these respects (x) cyanosis with breathing of an obstructive type

Sometimes the infection of the lung is undoubtedly embol c as suggested clinically and p oved at autorsy but in most cases inhalation of infected

is made to locate the ab cess after suturing the please and drainage is instituted at once following rib resection Explorat ry asp ration without the

aspirated gastric contents and teeth that have siir yeu from the extracting forcen ; well known

follows a graded thoraconiasty and is nectormed with the cauters at a esents a bette prospect

Expectant treatment is indicated during an asso-

Brunner A The Spraigal Treatment of Pul

picture as to leave no alternative but expertant treatment Operative treatment is indicated when localized

Thek! as xur

is suggery is now being used in the treatment of pulmonary tuberculos s a report such as this meets desperate choice

, .

~ 11 en

Four different operative procedures are indicated by the type location and associations of the ab

#cess Pneumothorax collapse when used for a central abscess draining into a bronchus is not only the safest but also the most satisfactory operation in

ery great value d r th following

> ax arti rapleural

a long period

Bezancon F and Jacqu lin A Bil teral Partial

coplasty

I neutroth ras (Le pneum th p et I bilate al imult ne) Pr s e med Par 1924 2 753 Pneumothorax was originally employed in the treatment of tuberculosis to collap e the wall of

trestment In all of thes conditions the object sought was

peciasiy is, a at 6 through the blood stre to

SURGERY OF THE ABDOMEN

ADDOMINAL WALL AND DEDITORETIM

G retenberger H J and Wahl S A Ultraviolet Ray Therapy in Peritoneal and Glandular Tuberculosis of Children I im it is 10 s

The authors observations are based on ten cases of personnel clandul c or occous subseculosis in abildan

All of the not ents were exposed to a quartz mer usy are lamp a cose spectrum contains I rays varying in length from 150 to 160 millimitrons. All of the patients except one were in the hospital wards and were not exposed to sunlight but from two to five minutes before e no ure to the ultraviolet rays two were exposed to a roo watt maz la lamt the siea being to dilat the peripheral ve sels and enhance the effect of the ultraviolet rays. The authors review the literature and give the hi tones of their t n cases in detail. They draw the following con advantage that its use consumes little time as it is unnecessary to wait for the development of the films which are of value only as netmanent records The patient is placed in a standing or a sitting position and a railed examination is made of the entire abdomen but expectably between the dis-

nonnitaries are usually regular and constant. The

mrr

in the treatites osseous tuberculo is

in the perit nea

f ton

*6...

2 Of the plandal r forms of tuberculous the mesenteric is most ratifly henefited the mediastinal next most r ridly and the peritheral most lowly

, -m 1 16L 1 1544 4 M

GASTRO INTESTINAL TRACT

Vaughan R T and B ams W A The Early Gastric Instina 5 .

In a series of fifteen anatomically proved cas a of nd duo ienal vice a ad

examination was made as soon att r the par adm sion as pos the and in some instances as early as two or three hours after the oc urtence of the

or sence on free air in the n micreal cavity in the earlier stapes air must be present in the stomach at the time of or after the acute perteration Among the co ditions which must be differ

entiated from the zone of air seen on 1 ray examina tio after a perforation of a ga tric or duodenal ulcer are plosts of the liver with the colon intervening between the liver and the diaphragm. This condi-Terentiated by the fact

of the entire en-

u re any pre eat

> Wes onal be unite

> > 201

ory

except where cyanosis was noted early (2) difficults in nurs ng by the baby (a) normal chinical charts

(4) absence of evidence of cerebral hamorrhage The author believes that in the cases of newborn irfants who develop cyano is a persistent I age

20

Mat

9 4 xt 429

Thyroidectomy hastens while gonadectomy de lave but does not permanently prevent in rolugon of the thy mus Suprarenalectomy alone not only delays involution of the thymus and lympho d tissue but may cause their regeneration. Thyroidectomy prevents

this r action even after combined suprarenalectomy and gonrdectomy Suprarenalectomy together with gonadectomy is a more powerful st mulus to thymus and lym pho d regenerat on than either of th se influences

alone

the interrenal and sex clands rather than of the ı

١ of the interrenal and sex glands of 'arya g intens ty

The so-called lymphatic constitution which under

are r ferred to briefly. The data of 373 protocols have been included in the study

STANLEY J SEECER MD

SURGERY OF THE ARDOMEN

1 1 -4

ARDOMINAL WALL AND PERITONFUM

Geratenberger II J and Wahl S A Ultraviolet Ray Ti erapy in Peritoneal and Glandular Tuberci losis of Children J Am 11 1ss 10 4

l v 1 fex

The outhers observations are based on ten eases. of personnel glandular or osceous inherculous in children

All of the patients were exposed to a quartz mercury are famp whose spectrum contained rate varying in length from 380 to 150 millimicrons. All of the patients except one w re in the hospital wards and we not exposed to similable but from two to hive minutes before exposure to the ultraviolet rays two name exposed to a 100 watt mazda lamp, the idea home to dilete the parpheral sessels and enhance the effect of the ultraviolet rays. The authors reven the literature and mue the histories of their ten cases in detail. They draw the following con chiennes

I Ultraviolet rays as produced by the quartz mer cury vapor are lamp have o need of decided value in the treatment of perstoneal alandular and pase us tuberculos s 2 Of the glandular forms of tuberculous the

mesenters is most rapidly benefited the metiastinal next most rapidly and the peripheral most slowly
3 Pulmon ry tuberculosis of the military type is

absolutely uninfluenced by ultraviolet ray therapy even when the treatment is begun early in the course of the disease Il Hoyt Cay M D

GASTRO INTESTINAL TRACT

Vaughan R T and Br ms W A The Farly

A name the conditions which must be differ entiated from the zone of air seen on \ tay examina tion after a perforat on of a gastric or duodenal pleer ar ptosis of the liver with the colon intervening L 10

advantage that its use consumes little time on it is

unnecessary to wait for the development of the

as D solute and in some instances as early as tw or three hours after the occurrence of the perforatio i The method employed does not require any pre-

ti e Audittonal

201

titit the air is not stationary but is changed in shape

forat |pret a ga 1 --- s

stomach with warm saline so ution

The most important of all precautions is the avoidance of operative trauma.

Printle St Aseptic Resection of the Intention

Be I S g 1914 mt 253

The steps of the operation described by the

author are as follows.

2. The bosted has now been realoused and the amount to be resected has no been deter it the man vessel at the area of the Nonpelp set of mesentery to be extract as livated other works along the lines of the V ranously up to the posts of section of the intestine are secured and the mean terms of divided the posts of th

2 A large crushing clamp with blades 1 in. w to is applied to the intest

nons on mpl ca of the in the studie gastric

I see a pined across the intest ne so that he impress just short of the mesentere attachment. It is important that the iip should not project be sood the margin of the crushed intes inc. When

led to a definite reduction in the incidence of pur monary complications

etor gent lum

T a operation must be performed with the gr at est gentleness. The authors have entirely abandoned the use of clamps. To reduce the number of microtraumatisms, the operation by

3 Inth n
terv a
ment t
the en
by an
gut is j
tery b
ment te
is peke

to the r

c needle is then

the forceps Another layer of continuous or 10 the torceps. Another tayer of continuous or to terrupted sutures is applied to approximate the terrupted surures is applied to approximate the intestine further and finally the clamps are loosened. intestine turtner and innany the clamps are loosened, and withdrawn and the small gap thus left is sutured. and withdrawn and the small gap thus left is sutured H when the suture line is completed the intestine when the suture line is completed, the intestine is picked up between the finger and thumb so that is picked up netween the ringer and thumin so that one I cs above and the other helow the suture line one ics anove and the other helow the suture line a free opening will be found between the two seg

ents The chief criticism that is likely to be directed against this method is that mucous membrane is ments against this method is that mucous membrane is not sutured to mucous membrane. Experimental not sutured to mucous memntane Experimental work along this line has proved conclusively box ever that suture of the mucous membrane is not

cessary The advantages of the method are the following te advantages of the diction are the touching.

The howel is divided through a previously necessarv rushed portion so that the mucous membrane is crushed portion so that the mucous memorane is never exposed and the risk of infection is reduced to

te minimum
2 The use of the clamp lessens the possibility of 2 the use of the clamp reasons the possibility of an internal shelf formation as the infolding mattress the minimum an internal sach torniation as the intorning matter sutures can be placed very close up to the clamp

tures can he pincen very close up to the examp The author cites three cases in which the method described was employed. In all the immediate described was employed in an time ammediate recovery was excellent. None of the patients had the slightest sign of local or general infection CARL D NEMBOLD M D

Burket W C Studies in Aseptic Intestinat Anas 1

> h st 1 trek S E 9 4

The method of asent c intestinal anastomos described was developed to eliminate the objection able use of a special instrument of mechanical device which must be either withdrawn through the hae of suture helore final closure or passed out of the intestines by peristalsis or otherwise. The tech

The mesentene blood supply of the bowel to be ruque is as follows resected and anastomosed is lig ted and the mesen tery is trimmed away from the intestinal wall with scissors. The isolated intestine is resected between ligatures of heavy silk with the actual cautery againtees on neavy sure une actuar cautery Each intestinal end is invaginated like an appendix stump w th the aid of a clamp and held in place by a firmly tied heavy silk I gature the ends of which are left I ng to serve as a handle

Between the nte tinal ends a complete row of presection interrupted fine black silk anastom sing mattress sutures is placed proximal to the hightures that hold the invaginated stumps and at a point

h is the blood supply to the intestinal wall is per-fectly maintained. These sutures a e not ted Fach one has a clamp attached to t to facilitate its The sutures are kept together in two groups corresponding to the respective halves identification of the circumference of the intestine so that the in

testmal ends may be brought up between the two

roups. The operative field is protected and the portion the operative near is protected and the portion of the intestine that protrudes distal to the ligature The distal is cauterized off with the cautery knife is cauterized on with the cautery knile. The distall segment cauterized off is discarded. This cauteriza segment cautenzed on is discarded 1 his cautenza tion prepares for release the digestible holi consisting tion prepares for release the digestime non consisting of the ong nat invaginated stumps with their con or the original invaginated stumps with their con-tiguous intestual wall that protrudes from under tiguous intestioal wail that protrudes from under the ligature. These cone shaped boli are held in the ligature. These cone snaped bou are neto in place by the ligatures and cannot force themselves outward because the base of the cone is directed outward pecause the base of the cone is directed toward the intestinal lumen. After both intestine coward and intestinal tumen. After note intestine ends have been similarly redivided with the cautery distal to their ligatures the presection mattress unsual to their nigatures the presection mattress softures are drawn up and fied so that they com sutures are grawn up and tied so that tary com-pletely anastomose the abutte! blind ends of in

A second row of anastomosing interrupted mat tress sutures alternating with the sutures of the first testine A and tied at the time of insertion o ptle pressure As

aned tions which mera.

has not been of "

tion is promptly re established

on is promptly to established.
This method has been used on dogs with good results. The author does not report a clinical case in which his operation has been done

HOWARD A MCKNIGHT M D

A Consideration of Intestinal Toxe mia with Especial Reference to the Use of mia with Especial Reference to the Use of Colonie Irrigations Md Cln h Am 1924 Boles R S

It is a well established fact that obstipation and chronic constipation lead to a condition described The explanations of the as micesimal toracmus and the method of their character of these toxins and the method of their

The symptoms include anotesia flatulence ab production are numerous

dominal pain physical and mental depression bead ache vertigo various paræsthesias etc. Absence of gastro intestinal symptoms does not rule out the disease The author has found certain cutaneous lesions associated with this condition. The diagnosis must be made on the hasis of a careful consideration of the symptoms analysis of the faces X ray examinations the carmine test and daily urinalysis The persistent presence of indican in the urine is

often of amportance

In the treatment duet is of the utmost import The ration should include a sufficiency of mmeral saits and the vitamins of egg fresh green vegetables butter etc lo the putrefactive type of intestinal toxxmiz the animal proteids should be restricted while in the fermentive type they should make up a large part of the d et The use of vaccines and acid producing hacilit is helpful. The author favors frequent colonic irrigations. An apparatus ----

ALBERT F DeGrove M D

Pring? S Aseptic Resection of the Intestine

The steps of the operation described by the author are as follows

I The bowel having been mobilized and the amount to be resected having been determined

rate of acute perforation of gastric and duodenal ulcer Carl D tempora M D

2 A large crushing clamp with blades 1 in wide is applied to the intestine at the point above the

ı

3 In the next step the edges of the divined in set tery are united up to within an inch of the attach ment to the bowel the two light for eps ontrolling the ends of the intestine being held in apport on No him to

traumatisms the opt by a house

kantising vo t su gical anasthesia may be expected the patient is taken to the operating room. If he is aroused by being moved he is given a few drops of supplementary inhalation but never to the point of maling

him snore On the completion of the operation he

opened pressure is made over the sigmoid to expelte remaining mixture and a hot coffee enema and an intravenous injection of adrenalin and p tuntim are given. The two deaths in the authors series occurred from suffocation not from the chemical causes of the annesthesia. One operator has used colonic annesthesia in 1500 cases of all types with out any fathlities.

The only contra ind cations to the method are

1 1

simple easy to control and comfortable to the patient conserves hodily heat and vitality during the operation and greatly reduces the after

Mile F

Miles examined Fixation of a growth indicates the passage of the cancer process through the fascia

LOCKHART MUMMERY stated that as in his experience the perincal operation has a lower mortality

1 1 - 4 1

fossa and parts of the levatores and In the cases of men he performs this operation under spinal anaesthesia induced with intrious origin and oxygen and in the cases of women under twilight sleep

for very early cases when the patient refuses an operation involving colostomy

EDWARDS uses a modification of the Kraske operation saving the anus. This operation gave a three year cure in 45 per cent of cases of proved cancers and its mortality was only 5 per cent.

TURNER showed pictures of the specimen re moved from several patients by the perincal route These patients remained free from recurrence for many years and many of them died ultimately of

Yeomans performs a permeal operation when the

GORDON WATSON stated that while the abdom inoperincal operation is undoubtedly superior on theoretical grounds it should be reserved for high growths. For low growths the perincal operation is the only one justifiable on clinical and practical grounds.

Mckenney said that he held a hrief for the

Quite of New York hy both 1 -- --

GABRIEL gave statistics from the records of 130

years after the operat on The oldest surviving

ical exam

in the colon Diarrhota alternating with periods of constipation is not uncommon

The diagnosis of redundant colon must be made on the history of long duration of constinution s long interval between evacuations occasional enormous execuations and (ratel)

found satisfactory is m if

ď m 370 \$11 as coion fixation etc Su guat treatment does not give satisfactory re Kantor J L A Clinical Study of Some Common sults. The use of catharties and enemata must h Anatomical Abnormalities of the Colon 1 gradually abandone ! A The Redundant Colon Am J Roentge of presembed 1024 XX) 414 intake is es taken by m a iseladonna in The author reports his observations in a combined roentgen ray and clinical study of early two cases of redundant colon among a series of 668 private patients complaining of various gastro-intestinal sucreasing doses three times a day tends to over come the spastic tendency Surgery should be re served for scute kinks and volvulus with signs of obstruction 1 52 1/ VETET symptoms A redundant col one m'h Meyer II W and Robbins B F Colonic Anas thesia J Am JI 4ss 1024 lxxxm 58s poq? 5 UC be e The authors have administered ether by the loons colon c route in 240 consecuti e cases and he e pel pel strat whi from a with t position sstirg c1 " nder 1777 Con tue operat It I sewed by the author 17 per cent were constipated Twenty six stated that they had no bowel movements for range of -'n au a m oo thrde f h mit tand

normal persons the time between the initial and maximum appearance of the dye rarely exceeds

three minutes H Hoyr Cox VD

Curran J F and Locke A W Echinococcus

Cysts of the Liver Bo ton M & S J 1924 cxci

932

Echinococcus cyst or hydatid disease is a parasitic infection characterized by the formation of one or

cycle of the parasite may be completed in sheep cattle and swine. In America most persons with the infection are immigrants

The echnococous granulesus is one of the smallest known tipse-norms. Its normal habitat when it known tipse-norms its normal habitat when it smature is the intestinal tract of the dog. Main cattle sheep and hogs are the intermediate hosts for the larval stage of the cycle. When the eggs arrive in the stomach of the intermediate host the acid gastrie junce liberates the hooked embryos. The embron pass junct he small bowel whence they are

process continues with the formation of daughter and granddaughter exists which fall into the cavity of the mother cyst. Such a tumor may reach a weight of 30 lbs or more. Any part of the body

the abdominal incision and establish good drainage.

The cyst cavity may be packed with dry gauze for ten days and then with gauze dipped in an acid alcohol solution. Under this treatment, the cyst

liver was ruptured during the operation and some of the cyst contents escaped into the free per toncal cavity. Subsequently the patient was readmitted to the hospital several times and surgical treatment revealed multiple recurrent cysts generalized throughout the abdomen and in the chest Death occurred soon afterward.

JOHN W NUZUM M D

Thurston E O Liver Abscess A Serfes of Sixty Four Cases Lanc 1 1024 ce 1 1008

In a series of sixty four cases of liver abscess sixty three of the patients were males. A has tory of dysentery was given in forty four ases. The ages of the patients sanged from 14 to 70 years and the duration of the condition from they days to eight months. Four young patients were treated by annue duel Four patients were treated by superstanding the same of these died. In mine died Four patients were treated by superstanding the same states an encison was made the abscess cavity cleaned out with gauze and stringated and the wound then tightly sewed up. There were no deaths in this group. Two patients treated by incission and drainage recovered. The total death rate for all methods was 14 per cent. In considering this mortality it must be remembered that all of the cases

five years but early surgical treatment offers a

or the left labe

The operative technique is simple All that is mecessary is an ordinary Potan aspirator General or local anasthesia may be employed. The site of the puncture should always be toward the upper surface of the abscess particularly in epigastic.

the d agnosis certain

The treatment must be surgical Laparotomy with opening and evacuation of the cysts should be performed. It seems best to suture the cyst to

with great rapidity and a puncture low down may

of the cases

patient who is now \$8.2 years old was operated upon thirteen years soo. The operability rate has usen during the last five years from 44 per cent to 54 per cent perhaps because of more careful select on of cases. The number of patients aline and well and showing no sign of recurrence was 18 per cent at the end of three years and 11 5 per cent at the end of five very

the war under improved anæsthes a it was 9 8 per tent. His operation has yielded a cure in 50 per tent

LOCATARY MUMERRY said that he thought as recat deal depends upon the type of growth and that one of our chief needs is a means of determining the degree of mal grancy beforehand. He helives that some cases cannot be cured by the most radical procedure while in others of apparently the same type there may be marked unprovement after a local extraor.

BALDWIN remarked that he had performed the abdominopenneal of eration successfully upon a woman o er 76 years of age. This patient came back to see him when she was \$5 years old accompanie by her husband whom she had married a nee the operation. Carbot F Arbates M ID.

LIVER GALL BLADDER PANCREAS AND SPLEEN

Mar r - - - -

In a previous paper it was reported that in the first two minutes of typical canine anaphylactic shock a sharp contraction of the unnary bladder tensitie bladder contraction does not occur in debe batted anaphylactic degs. The conclusion was drawn that the typical anaphylactic should be a serious of the conclusion was drawn that the typical anaphylactic should be a serious of the conclusion with the contraction is due to the contraction in the part of the contraction is due to the contract of the contract

gastro intestinal tract. It is possible that the hepatic anaphylatoria is but an exaggerated amount of a normal hepatic interral secretion a hepatic hormone whose main function is to cause rapid exacuation of the gastro intest nal tract on the absorption of torus products from the intestine

Boardman W W and Schoonmaker G D
Phenoitet achlorphthalein in the Study of
Liver Function Am J M S 944 cir m 6 3

CYRIL J GLASPEL M.D.

The authors review the literature commentums expressibly on the work of Kosenthal Roomehald work was based on the theory that as the liver is practically the only organ involved in the climan toos of phenolitetrachlorphthalten and as the dry appears in the nume only when there is evidence appears for the nume only when there is evidence of the cased output by the liver it is probable that the contract of the co

was an simmediate rise from 15 to 50 per cent and the values then remained elevated 17 per cent being recovered almost two hours after the injection. Then, was evidence that the curve of reten tion, paralleled the d g ce of impairment of liver

function

Linual application of the test showed retention
of the dye in all cases of disease of the liver. In
the cases of twenty normal persons no dve ap
peared in the urner whereas in the pathological
cases all but four showed dye in the urner though
not in proportion to the conc attration in the
blood.

Boardman and Schoommaker made claused studies of porsula and gathologual cases with the Rosenthal and daudeaul tube methods using 156 mgm of the day When the latter method was employed in the cases of ten normal persons the miral appearance tune easief from aims and one balf to tharteen minutes. When the Rosenthal method was used these same our with the exception of the cases of

4 When 150 mgm of the dye are used an initial appearance time of eleven minutes or over and a maximum appearance time of fourteen minutes or over indicates liver disturbance. In the cases of normal persons the time hetween the initial and maximum appearance of the dye rarely exceeds H HOYT COY M D three minutes

Curran J F and Locke A W Echinococcus Cysts of the Liver Bo ton M & S J 1924 CEC1

Echinococcus cyst or hydatid disease is a parasitic infection characterized by the formation of one or more cysts. The disease has a wide distribution but is most common in Iceland where it is epidemic In 1917 about 14 per cent of the deaths occurring

cycle of the parasite may be completed in sheep cuttle and swine. In America most persons with the etastgimmi are anticatal

Ln ma

Brood capsules form from the inner layer. The

five years but early surgical treatment offers a good chance for cure

The first s gn of the disease is often the presence of a tumor mass in the region of the liver. The palpable cysts are painless. When there is pain alconol solution. United this fleatment the C St. membrane shrivels up and is cast away after two or three weeks. At a later date the defect can be renaired by a plastic operation. Creat care must be taken not to spill any of the cyst fluid as the daughter cysts are readily transplanted in this way

The author reports two cases of echinococcus disease. In the first in which there were multiple cysts of the kidney a cure was effected by nephrec tomy In the second an echinococcus cyst of the liver was ruptured during the operation and some of the cyst contents escaped into the free peri toneal cavity Subsequently the patient was re admitted to the hospital several times and surgical treatment revealed multiple recurrent cysts gen eralized throughout the abdomen and in the chest Death occurred soon afterward

JOHN W NUZUM VID

Thurston & O Liver Abscess A Series of Sixty Four Cases L n et 1924 cevil 1008

In a series of sixty four cases of liver abscess sixty three of the patient were males. A his tory of dysentery was given in forty four cases

dramage recovered The total death rat for all m h

un only cated cases can be reduced to 5 per cent Rogers gives the mortality for the open operation as 40 5 per cent for the ahdominal wall route and 73 4 per cent for the chest wall route The site of the primary focus is of great importance. An absceslocated in the substance of the right lohe is more difficult to diagnose and will he operated on at a later stage with greater destruction of liver tissue than one on the anterior surface of either the right

The operative technique is simple. All that is ator General

The site of

rd the upper cuss particularly in epigastric cases An 6

or the left lobe

with opening and evacuation of the cysts should be performed It seems hest to suture the cyst to

- se lapuly and a puncture low down may

patent who is now by years old was operated sponturteen years ago. The operability rate has reanduring the last five years from 44 per cent to 54 per cent perhaps because of more careful. I chom of cases. The number of patients after and well and showing no sign of recurrence was 18 per cent at the end of three years and 12 5 per cent at the end of five years.

CYRIL Y GLASPEL M D

wrent and

Boa dman W W and Schoonmaker G D Phenotetra biorphthalein in the Study of Liver Function Am J M Sc 1924 1x1 688

The authors review the literature commenting especially on the work of Rosenthal R senthals work was hased on the theory that as the live is macrocally the old.

of the rases

~ ~ × »!

BADWIN remarked that he had performed the abdominoperineal operation successfully upon a maman over 10 years of age. This priter — back to see him when ahe was \$5 years old accompanied by her husband whom she had marr 4d since the operation.

CLAITOF FAMPIES UP

t per cent the 196e 's of reten nt of liver

LIVER GALL BLADDER PANCREAS AND SPLEEN

Ma I " " P D F

In a previous paper it was reported that in the test two minutes of typical camne anaphylactic shock a sharp contraction of the urmary bladder takes place. It was found also that this charac peared in life uil e :
cases all but four bowed dye in the urine though
not in proport on to the concentration in the
blood
Roardman and Schoonmaker made clinical

i es of normal and pathological cases with the

method was used these

mical prod vely formed er and that effect on the

uable means of studying the functional activity of

or uputa e er and that these products have a histamin like effect on the

she bad had typhoid fever with gastric symptoms she nag had typholo tever which varied in intensity hater there was revens which variety the stools were.
During the attacks causing referts the stools were schoole Recently the reterns had became and the

suem's neam and jamed visiony Palpation revealed an apparently nodular tumor batheut a pealth pod larled starply Paipation reveated an apparently noguest tumor the size of a small fist on the right side under the

age of the lives At the first operation performed in September at the past obelands bettermed in bestemper 1970 the euge of the liver was found covered to an extent of about 8 cm by the transversely fixed and edge of the hver erient of about 5 cm by the transferred process of dilated full bladder most of which lay on the content of the lay r. embired into a tense. O stire mass the size of a pil

pard pall which spread out pets cen the pilmu of the het and the abbet subje of the gnodetimy and sail ported in firm adpeasons. On pressure over the sail puried in prin somesims. On pressure over the gain bladder the cystic mass became filled, and when the Dieszine was Islegased if embried 70 estent were numer rue Asire mess neronic much mich mich mes me

Name to the kar obesed divertients and trapec then the east was obested directions and craoce balbaple in the Eall pladder the thickness of a goode on it was introduced into a

one inichness of a good of U was introduced into a depression with three valve like human at entered the position of the No communication in the development of the Augustania and the A the right pepatic duct. No communication viab the duodenum could be discovered to faithful A the probe by has of the duodenum at the country when the country w bolints where the chat was agreeing to the gnodennus and bautiess there were babiliary elevations sug and paneries there were papulary elevations sug gall hladder and the cist were exurpated

gan magner and the cyst was about 15 cm long arount of the negatic duck was about \$ 200 miles. As the patent a condition became serious the opera tion was interrupted and a drainage tube as thick as uon was interrupted and a uranage time as inter-a finger was sutured into the stump of the bepatic 4 mager was sutured into the stump of the octained duct. A punctate of the cyst contents contained duct A punctate or the cyst contents found even typhoid bacilli as did also the drainage fluid even

typholog pacum as and also the grainage muid even as late as the tenth day. On the seventh day the

A second laparotomy was done on the eleventh As by the stime the stump of the hepatic duct day As by in a time the stump of the neparte but that become markedly shrunken it was necessary to icierus receded nad necome markeny strungen it was necessary to eners an agastronous with the segment by arcting so a catheles 8 cm long according to the Jenkel Wilms

on the forty fourth day a normally colored dark brown stool was obtained by enems and on the method

prown stool was outsined by chemis and do the fifty fourth day the sutured in rubber prosthesis was Macroscop e examinat on of the cyst revealed in removed A complete cure resulted oraccoscopy c examinat on or one cyst reveauct in

ble duct. On microscopic examination the Cyst. 23 found I ned with cylindrical epithelium. There was

Subsequently, when the patient induired whether pregnancy would be dangerous she was ans ered in the negative because of her good general conduno neoplasm tion In the sixth month of pregnancy slight icter us appeared frequently and art r the h guning of has appeared inequently and are time in generals on March 1922 this persisted. A spontaneous mis statich 1922 this persisted. A spontaneous mis carriage occurr or a mice gam manual (press, me and the secretly retent child died eight days later

The patient showed acholia with itching lever and

chiis
The third operation performed in July 1922
The third operation performed an automous only a received at the site of the old anastomous only tercance as the site of the hitm of the liver and the norous vanu nerwers toe mum or the aver and the pylorus. An opening 2 cm long and 3 cm wide was pylorus An openne 2 cm iong and 1 cm wide was therefore reade with the Pacquelin cautery in the direction of the aris of the hand. Immediately there

ourection of the axis of the made immediately there after the sound passed toward the right into a large after the sound passed toward the ugus into a large intrahepatic bile duet. A drain was placed in this During the first three days after the operation the intranepatic one duct a drained externally opening and the bile drained externally

During the first three cays after the operation and carried to the was only slight that it amount transport of hile was some daily. The bile was some do to shout 1000 ccm daily. ed to about 1000 cen daily the bite was some times dear and colortess and sometimes of a deep hale color. The icterus receded On August 8 the oranage or me was our daily nue contra the selecting recence on August o the panene was assembled in good general condition

terus 1 as suu present In the mest eleven months the patient was at the Medical Cin c from time to time When the philats scterus 1 as still present

Medical can extend time to one When the outer fistula was dilated to the laminaria tents during this nstma was quated the resulting objutation of several hours dustion cansed chill and a high tener

As the sciens and not entirely disablear in soute as the surrive and not causify analyses in some of all internal med cation and as the bluary fisting or an internal operation and as the musty natural nas very annuying a journ operation was under taken. It was assumed that the persistence of the istern it was assumed that the betsirence of the piliary outflow interus was due to obstruction of the biliary outfor of the left lobe of the liver. The plan of operation included to procedures by way of the left lobe of the liver, and (3) a pre

I musty operation to lead the fistula bile into the intestine by unitatefully shinting out a portion of the small infestine and attaching it in the vicinity of

the external opening of the fistula

on August 8 1933 the small intestine was sec On Vallati s 1913 the amogenoleling therate and tenaca , rm trom me anacaoje man mernie may re implianced and to successory as constructions.
The terminal portion was closed and feel through a six in the encacedon. The left labe of the liver was found to pe of ictenc color, band, and notings. Yu opening 2 cm long and 1 cm wide was again burned obemns 3 cm long and 1 cm wide was again named wern a racquerin cauter, on the undersurface of the liver and carefully dilated with a stone sound Atthough to bile came anay an anastomosis with nunous 200 one came anny an ananous men the stomach was established over 5 resorbable drain 5 cm long The blindly closed portion of the small

Jem ones are minute rosed Softmay a strike in On the fourth day the stool showed a most abun the actions of the abdominal fistula

On the court as the stood showed a 1903 about dant admixture of blood. The patient died on the

Autopsy sho ed that the bil ary duct of the right natopay suo en that the on any queror the tree is a fistula hour on the user from union the external institute on minated was not the main branch. This duct was sixth day ongnated was not the main trade, and the main trade in markedly dated and at the hills joined the main branch of the left lobe. The luming of both were uranen ur tut teit tope tan tumna or toth were filled by a soft black stone branched like a stone in the renal pelyis The position of the stone lodged in the left man branch was 5 cm long and that in the night branch 2 cm long and that in the light branch 2 cm long.

Spek o ... ro

tle te tod an

While the author regards aspiration as the operation of choice he believes that in doubtful eases

STANLEY J SEECER MD

Winkelstein A and Aschner P W Esperi mental Billary D strage in the D g A Fre liminary hote im J M Sc tata circ 1749 Winkelstein and Aschner report the results of

a alone 3 has a second as some of the

without a

r placed by an equal amount of siye

If the duodenum s as then lavaged through the
tube with
solution

THE COR ING AN & HELEVAN IN F. C. V.

the magnesium sulphate solution yielded only yeuow frown hife

and sater
blue was rec
bours after

sulphate solution yielded fluid well statutu by a Gye Sub equently on lye was recovered from the duodenum and at autopsy one week later no die was present in the gall bladder I seems probable that the gall bladder had been empited of the original dyed bile within a period of forty eight to seventy two hours.

Identicals sults were obta ned in two other minal From the e find ngs the authors conclude that following the introduction of wasm 25 per cent Bode (2)

lla E

.__

A noman 27 years old came to the Clauc with a d agnosis of cholchthiasis. Three years previously

τī

she had had typhoid fever with gastre symptoms Tater there was reterris which varied in intensity Later incre was reterns worken variou in incensity During the attacks causing reterns the stools were

Juning the strates causing totals and persisted and the Palpation revealed an apparently nodular tumor patient's health had failed visibly estpenion terearch on apparently mosaurar parous established in the right side under the the size of a small fist on the right side under the

edge of the liver

At the first operation performed in September

At the first operation performed covered to an

ago the taken of the liver was found covered and

extend of a first operation and the second covered ones. 1920 the eoge of the uver hab found covered to and settent of about 8 cm by the transfersely fixed and edge of the liver execut of about o cen us the consideration of the condition of the conditi cutated gait masser of which tay on the contract of the liver. The cystic duct 5 cm long ventry or one uver the cyane area & cup and a tense of a bill but pall which absend on pets can the plant of the embined into a tense. Chapte there are of a bit part ball which spread out bett een the bluum of the liver and the upper angle of the duodenum and was burred in firm addressors. On pressure over the gall burred in firm addressors. puned in arm agaesions. On pressure over the gain bladder the cystic mass became filled, and then the busines was telepred if aublied 40 calony were means the sale mass nervois third and then the

When the chat was obsued divertishir and trapec Miss wile seen on its inner, shipses a found balbaple in the Rall plagger the thickness of a goose quilt ass introduced into a ure inicases of a goose quit was introduced into a content with three valve like lumina it entered depression with three valve like lumina it entered ouogenum could be discovered. An attempt 10 probe by way of the duodenum also failed. At the proper my way or the duodenum also taked. As the points where the c) at was adherent to the duodenum and bancies there mere bab littly elevations and and pancress there were pap hary enevations and pancress there were pap hary enevations of these the and pancress there were paper as the pancres there extirpated the seeking a neoplasm sesting a proplasm. Chieffy because of these The sail bladder and the CSs were extripated to the beparte dust was about 15 cm. In the beparte dust was about 15 cm. In the behavior of the beh stong of the nepatic and has about 63 cm was tion was interrupted and a drainage tube as thick as a fuser was sutured into the stump of the hepatic a imager was surfused into the stump or the meant duct. A punctate of the cyst contents contained

out a punctate of the cyst volumes, consumer to phod bacilli as did also the drainage fluid even symposic pacture as and also the drainage fluid even as late as the tenth day. On the seventh day the A second laparotomy 1 as done on the eleventh day As by this time the stump of the hepathe duct had become markedly shrunken it was necessary to icterus receded uad necome markeny snrunken it was necessary to effect an anastomosis with the stomach by means of

eueci an anasiomosis with the stomach ov suchus or a catheter 8 cm long according to the Jenkel Wilms On the fort, fourth day a normally colored dark On the loci youth usy a normal and on the blur fourth day the sutured in rubber prosthesis; as method

muveu A complete cure resulted Macroscope examination of the cost re called in removed A complete cure resulted Macroscop c examinat on of the cyst re cource in has a continuous appeared to use the common the cost was feeled the three costs as has out. On microscopic examination are that was found lined with Chindrical epithehum. There as

Subsequently hen the patient aquired whether DESIGNATION WOULD be dangerous she was answered pregnancy would be dangerous she was answered in the negative because of her good general condino neodlasm in the axis month of pregnancy shight icter is appeared frequently and after the beginning of us appeared frequently and succe the beginning of March 1922 this per sted A spontaneous misuarth 1922 this per sted A spontaneous mis carriage occurred a th eighth m nth of pregnancy carrage occurred in the eighth in into o pregnance and the soverely eight child died eight dies later

The patient showed achoits with riching lever and

chilis

The third operation performed in July 3922

The third oper revenue at the ane or one but anaxomous only a following hand between the hillim of the liver and the following hand an arm to be a followed to be a followed by the following a following the following a following the following a following the following t mutous pand netween on minm of the liver and the property and the liver pyiorus An opennag a cm tong and 1 cm was was therefore made 1 th the Pacquelin cautery in the moreone means of the hand immediately there direction of the axis of the hand immediately there conceins of the same and another the sound passed to and the tight into a large after the sound passed to and the tight into a large particular the sound passed to another the sound passed to another the sound passed to a second passed to a

airet ine sound passed tot and the right into a large intrahepotic bile duct. A drain was placed in this intrahepotic bile duct. A drain was placed in this opening and the bile drained externally During and the me drained externally During the lift three days after the operation in drainage of bile was only slight but believes some days about 7 noo cen days and 7 the bile was some ded to about 7 noo cen days and one of the days
ed to about 1000 cen daily. The bile was some times dear and colories and sometimes of a deep times dear and colories and sometimes of a deep bile color. The letters receded. On August 8 the bile color. The letters receded. unic cour far acterus receard un August e fine facterus receard un August e fine facterus receard un August e fine facterus receard un general condition process and secondaries as gave general conduction for the ble for the secondaries are conducted to collect the ble for the secondaries are conducted to collect the ble for the secondaries are conducted to collect the ble for the secondaries are conducted to collect the ble for the secondaries are conducted to collect the ble for the secondaries are conducted to collect the ble for the secondaries are conducted to collect the ble for the secondaries are conducted to collect the ble for the secondaries are conducted to collect the ble for the secondaries are conducted to collect the ble for the secondaries are conducted to collect the ble for the secondaries are conducted to collect the ble for the secondaries are conducted to collect the ble for the secondaries are conducted to collect the ble for the secondaries are conducted to collect the ble for the secondaries are conducted to collect the ble for the secondaries are conducted to collect the ble for the secondaries are conducted to collect the ble for the secondaries are conducted to collect the secondaries are collect the secondaries are conducted to collect the secondaries are collect the secondaries

terus 1 as stup present In the next eleven months the pattent was at the In the next eleven months the When the bilists icterus 1 as still present

Menical Cinic from time to time when the ounsy this fistlif was dilated with laminaria tents during this nstura was unated white hammaria terms during this period the resulting obturation of several hours uration caused chuis and a might lever As the icterus did not entirely disappear in spite duration caused chills and a high fever

of all internal medication and as the b liary fishula on an ancessas ancuseasus and sa ene u pary natural sector annoying a fourth operation was under was very annoying a journ operation was under taken It was assumed that the per intence of the taken as due to obstruction of the bibary outflow interus as due to obstruction of the biliary outflow of the left loke of the liver. The plan of operation included it procedures (i) cholongo enterationsy by war, of the left loke of the lower and (a) a new by war, of the left loke of the lower. by way of the left lobe of the liver and (2) a pre I'm way or the cert fouc of the liver and (2) a pre immary operation to lead the fistula bile into the inneary operation to rear the mains one into sie meeting by undaterally shunting out a portion of

intestine an unuarerain southous it in the acounty of the small intestine and attaching it in the acounty of

On August 8 1923 the small intestine was see the external obcuing of the testing On August 8 1973 the small intention was set tioned t cm, from the dundenciejunal flexure and funned from the annuestolenus thereto such re implanted end to see about 30 cm suriner do in.
The terminal portion as closed and of the through a
thin the mesocolon. The left lobe of the deal of the
and an hard reference and the best and analysis. An found to be of retenc color hard and nodular An obening 3 cm long and 1 cm and a 43 again printed to ne of tetetre color many and monatorise of opening a cm jong and a cm wide nas again burned with a Pacquidin caucry on the understrike of the with a Pacquidin caucry on the understrike sound a characteristic of the course of th Vict. and catelinia anaten with a spartomosis uith the stomach was established over a resorbable drain the stomach was established over a resorbable grain 5 cm long. The blindly closed portion of the small

Sem tone are led out over the abdominal suttre in on the fourth day the stool howed a most abun the vicinity of the abdominal fistula

Un the tourin day the stoot nowed a mink south dant admixture of blood. The patient died on the

Autopsy showed that the biliary duct of the right outoppy snowed that the other of the liver from high the external fistula now of the user from men the external natural and amparated at not the main branch. This duct was originated as not the main urgane, and outs was markedly diluted and at the hits poned the main track of the 1 ft jobs. The lumina of both were considered to the constant of the lumina of both were constant of the lumina of both were constant of the lumina of the lumi sixth day nessuce on the 1 11 tone Ame number of the a stone in filled by a soft black stone branched like a stone in the rad pelvis The position of the stone lodged in in r and previous and promision on the stone, confect in the left in the branch was 2 5 cm long and that in the right branch 2 cm i as. The left lobe of the left right branch 2 cm i as.

212

o C i suctame amounts of the outhogen are

Roerte W The Indications for the Operati e Treatm nt of Cholelithiasis (U b r d e Indik

to nen zur operate e B handl ng d r G li nst brankhet) Deritch m d li hus k 1924 l 867 There are two stages of the disease to be differ

trabepatic formation is of particular interest and a rare find ng

Histologic examination showed that the canal formed over the rubbet prosthesis had not become lined with mucous membrane Therefore no ad vance was made from either the hepatic duct or the stomach

The case showed also inducations of a concentral

своюнениям (самини)

The first stage may become latent and remain

gan en uuet

While medical management was formerly pe ferred in the first stage a number of famous sur geons have now expressed themselves in layor of

ta e

A severe icterus and cholamia persisted w ill 4 biliary excretion of from 800 to 1 000 c cm of bile per day h nyment

> sż ad mae but

bilimbia n val es

ot

of the unne

4 Vounties % a showed no changes

SURGERY OF THE ABDOMEN

and appearance of transient jaundice and frequent ich appearance or transieur Jaudouce and risqueite need for mort hine. Long delay may result in severe need for mort time. Long delay may result in severe pe reduced as much as possible Operation in these or resurces as much as possesse of the bile tracts cases reveals advanced disease of the bile tracts and ireducitly beginning of even complete rupture and requently organing or even complete rupture of the gall bladder into the surrounding organs or the gan manusc into the surrounding orkins the strength only in Less frequently there are no stones and only in Less irequently there are no stones and only in dammator; changes and adhesions between the nammatory enanges and aunesions between the gau plagaer and its neighboring structures. Lamnic findrops of the gall bladder does not in itself con Strate as indication for oberation ruless there is included in the Bart mender mass row in recent rou suure an mucauon ne operation unicas cuere is infection. An inflamed obstructed gall bladder is an btolyphieric obetation sponty pe coue in symbtom appoints ing cation for interceuron less hidrops must depend upon the conditions in note the patient lives as regards the danger of

Coleman R B and Bateman J E Science Const. Experion Splenomesaly Seventy Cases in Laret in a ce. sudden infection

In Egypt the majority of cases of splenomegaly in Leypt the majority of cases of spicinglucially come from two well defined ateas, one in Zagazig come from two wen actured areas are in seasons and the other near Diektans both in the easier of the state of unia are authors are not use nowever that this fact indicates an especially high incidence of

the condition occurs most frequently in the econd ine conducto succurs must irrequently patients a hose and third decades, if life The seventy patients a hose the disease in the e centers and the reviewed tanged in age from 8 to 40 years cases are reviewed ranged in age from 5 to 40 years.
Then average age 2 as 10 years the wastes were females. This dispantly between the two sees, and the second of the se nere temates this duparity accreen the two serves is not to be accounted for entry by the greater is not to on accounted for entrity by the greater readiness of men to seek medical aid. It is rather an resumers of men to seek mentional and it is rather an officeroof in sex mendence in the difference in sex mendence. indication of a true discretize in act anchorages Bulbart ass is much more common in the male than in the female in Egypt, and it is possible that there may be some causal relation between bil

In the case service of the Jencochie count averaged ta the cases tevies a the tencors te count averaged.
The differential white cell harzia is and splenomegaly count was about normal Any considerable degre of leucos to 1 has been regarded as a contra of seconds to the second of the second and second of the s

the authors have soldom found a case in which leuroctiosis early in the dease The authors mate seldom touring a case in which the adhesions about the sphere could not be broken don't safety from their e perience they conclude that a spleen which is very long from above down. tost a speen which is very long from moved only easily but that a broad plean ext ad as medially easily put that a proad piece ext no us meutan) beyond the middle line means a thick bunched up beduce in which the Acades are difficult to teach and settle ind algorith. In the selection care a they and service and violatily in in so latter cas a trey intow a negature ground the whole of these and are the cutting off the sphere, the the Expline ends of the cutting on in spaces the time beginning entropy of the pan As to scharar is recasionant rise bed be and oute creas is very crossiy at ouverin the per cre and once or twice in difficult cases the tip of this organ bas been included n the ligature and removed Poor results ha

authors have had no serious trouble with hamor thate in any case and no immediate faralities. The sheens temoted tanked in site tom 1% to 13%

In the cases reviewed the mortality was 157 per an the cases reviewed the martinly was 15.7 per cent. The Exyptian Covernment Hospital has re-

ported forty three cases with a mortality of 20 9 er tent It has been difficult to follow up native patients hat of the far number that have been traced and but of the fair number that have been traced and re-re-examined hearly all have been found well and the re-tromp bone of them has shown any evidence of strong bone of them. per tent second and the late symptoms of the ascutes when it is left to pursue its course without di ease when it is left to pursue its course without at ease when it is less to batton ablenectour is

of cration are the notions opinion species on the most satisfactory treatment of Egyptian spleno-

meraly

The Diagnosts of Acute Abdominal III MISCELLANEOUS

ness in Children Lenc | 1924 cct 737 Bry an points out that there are certain differences n the signs of abdomin I conditions in adults and Bryan G In thic signs of services of older batterize steet tell in the cases of older batterize steet tell in a sants and in changes an one cases or once patients steat real ance can be placed on the history and subjective symptoms in children these may be of little value Ambinus in connect russ may be at increasing to where it are impossible to should always be

give an accurate nistory they anound al In cp idea most appointing emerkeners are que to to the same and any canal but the symptoms of lesion of the alimentary canal but the symptoms of sesson of the aumentary canal out the symptoms of onsel frequently direct stlention el entiere. The binach efamination spong pe keth tunank mit the sim of station of a feutatine distincts bumples examination anomal ne Area simonater the aim of arriving at a remarine methods of detertwo most important objective methods of deter-mining abdominal disease in children are projection, of the abdomen and rectal examination of the abdomen the point of greatest senderness and the abdomen the point of greatest senderness and the means of projections are provided to the abdoment of the ab eval we evalue the point of present of localized Band and a balbaple intuot mass sponly be defet mined It is often advisable to exclude the childs parents from the room during the examination. The

fall couppeace of the batters mast be secured the cases of nervous or unruly children light ether une cause or nervous or unway children light ebier anniba. The manufacture and to especially desirable and necessary for the real common of the business of the property of the manufacture of the business or manufacture of the business of balbation of the famot in sasbected infragarecoftion 4 ketraj estamuațiou eponiți ajwake pe marje "apeu Ombatior of ine famot în erabecteo intrasorchion a recens examination amount amays are minute some

Unnalys a will reveal at once the presence of a Venneys's will reveal at ourse the Mol malignant pychits or acctonama As possibility of malignant get this of the colon gall bladder disease and the abdomen or hip joint gro tas of the colon gau bisager alsesse and chronic ulcer tion of the stomach and duodenum curonic uncer your or his summed and unousconding may be excluded immediately the d agnosis in the may be excused manufactery the queersons in the exces of en order as timpeer or abheumers intestruar esecus personnes accommus successor personnes internas.

byelitis and a few less common diseases Pycuus ann a tew ics common diseases
Appendictus is probably the most common surgical emergency in the child. The chinical picture which was nodular and smaller and harder than the

8 Considerable amounts o a always found in fresh p.g.s bile 9 Me lier s test can no longer be accepted as proving the origin of urobilinogen in the intestine Science and Scie

Koerte 8. The Indications to the Operative Treatment of Cholefithlasis (Lebe die Indika tonen zur oper 1 en Behandlung der Gallenster kranh st.) D tack ne d W has kr 19 4 1 267

There are two stages of the disease to be differ

Histologic examination showed that the canal formed over the rubber prostless had not become lined with mucous membrane. Therefore no advance was made from either the hepatic duct or the stomach.

The case howed also indications of a congenital mailfornation this explaining the very unusual post tion of the external billiary statem. There were no findings to support Buddes theory that it was a call of diverticulum formation due to displacement.

Physical the very budget of the property of the support of the very budget.

of an acute or chronic character arise (if egu a

The first stage may become latent and remain quie cent for a long time or even for life but is and to recur and may at any time advance to the

gall parquet

"Ih! medical management was formerly pre

marized as follows

1 A severe acterus and cholemus persisted with a biliary excretion of from 800 to 1 000 c cm of bile per day

2 The amount was constant but the pigment

he noc was not a bile a tst

4 Vounarus I

of the name

GYNECOLOGY

UTERUS

adnexa was done. In fifty three cases hysterectomy

huncz A The Results of the Alex nder Adams Operation (Ueber d II lu g f lg d t Me a der Ad ms p atto) Z i lbl f Gy k 1924 xlv 1 330

In Group 3 there were fifty cases with a cervical condition suggesting cancer Local excision was done in four local excision with colpoperineorrhaphy in sixteen and hysterectomy with colpoperineor

currence resulted six times in the fi st group and

Bu fan it the fundus u tue last group mentioned there was one death

Group 5 consisted of five cases of cancer of the body of the uterus for which historectoms was done

Croup 6 included forty nine cases of cancer of the cervit Hysterectomy was done in thirteen with two deaths In thirty four in which the growth was monerable local treatment was given Two nationts were referred to the radiotherapoutist In Group 7 were thenty one cases of polypu pre

senting at the uterine of Local exci ion was done in fifteen and hysterectomy in six

In Group 8 were five cases of subinvolution endometritis etc which were treated by curettage Three pat ents declined operation

CARL II DAVIS M D

litschberg il Hæmangloma of the Uterus (Ifam grom t i) Z t ibl f Gy ek 924 xlvau cor

Hemangioma of the uterus is rare. The case reported in this article was observed at the Leinzie Clinic The patient was a noman 64 years old who had had four spontaneous delivenes. For several

cay ty THE CT (()

Phillips J Uterine Hamorri ag About the Time of the Climacterie B & M J

Two points which the author emphasizes are () th t in about 25 per cent of the cases bnormal bleeding a associated a th malignant disease and (2) that it is very d sirable to investigate all of the patient s complaints

Phillips re ens 202 co secutive case may be divided into eight g oups In G oup a were 10 cases of fibroids Cu ettage was don in o e case. In fi e cases a partially strude I fib oid was rem ved though the vagina with to deaths. In an ther c se a malignant fibroid sas removed th ugh the vaging and the patient did Hyster e tomy we don in ni ety f ur cases in five the fib oid was malignant a lin ix it was degenerating The e w s one d ath In one ca e of moperable mal gnant fibroid an e ploratory laps otomy 125 done

In Group 2 were fifty seven case of degenerative changes in the uterus such as chronic metritis fibro is and glandular endometritis. In four cases with ovariosalping tis the removal of only the

o at 1 art the fundus showed no true mucous lun z

Microscop c examination di I not reveal any pecu hant es in the epithelium present. Toward the fundus the mu culature was split with the formation of an arregular network with hollow spaces. High varies somewhat according to the pointon of the appendix. The order of incidence of symptoms is appendix. The order of inciden

symptom Rectal evamination reveals an abscess in the pelvis or a swollen appendix tender to palpa

Livod urea nit ogen inc ased Co dit n C ses C es Pe ent Pent n ti 84 06 8 8 Obstact n 6+ 5 Payerestst s 19 3 7 2 Acute append 1 s 138 D seases of rait hi dd r dd cts 9

terminate in a localized pelvic abscess. In these cases drainage of the abdomen when instituted early offers some hope of recovers but the mortality is

high Of the remaining acute abdominal illnesses of childrood inclussuscention calls for exterior consideration. The typical picture in infancy 1 ea its recognized but when the tumor mass cannot be

recognized but when the tumor mass cannot be raipated the diagnosis is diff ult

During the scute onset of ent rocolites with bleeding from the rectum the child cries because

probably those involving the pancrea
William J. Pickers V.D.

nomen of cancer age however bemon they may

pulmonary complications Furthermore after the

the importance of complete physical examinations

noma of the cervix Edward L Cornell M D

Leland G A Jr Massl e Dose Radium Freat ment in Carcinoma of the Uterus Am J

Roente | 10 4 X1 373

The author reviews the cases of carcinoma of the cervix which were treated at the Huntington Hospital Boston between July 1920 and July 1921 There were 126 cases of primary carcinoma thirthere cases of recurrent carcinoma following control there is no second to the case of the cases of

is the objective

3 The likelihood of fistula formation is not great er in unscreened radiation than in screened gamma radiation

4 Adjunctive cauterization and external radia tion have not been found of sufficient value to be used as routine procedures

HARVEY B MATTERWS M D

Daels F and De Backer P A New Technique of Curie Therapy of Ca cer of the Cervix Uterl Bet J Red 1 9 5 xxx 3 5

The authors give the following reasons for the publication of this report

the 142 traced twenty one (127 per cent) were well after three years four were alive with a recurrence and 122 were dead. All of those with advanced carcinoma were dead.

Massive doses of unscreened radium averaging

Tugit

b) pluss are petvic pain bladder and rectal irritation a dg eral milaise. The post rad tion reaction is very la gely in direct atto to the amount. I sea tissue pre ent in and about the cervix and uterus and nelvis.

In reference to the use of the cautery and radium th au h in Fe

to

forward lateral and backward series on each side have different types of links. Tubes are placed at o in the crater in the vag na. The first series of tubes is placed between the

ischial spine and the edge of the sacrum by means of the techn que previously described and with the aid of th half c 1 Th

1 en ust set es of tubes is placed by tongs introduced into an incision made in the abdominal wall at the level of the antenior spine between this point and the midline and passed extrapentiomagnification showed that the spaces outlined by

cancerous conditions and it is in them we encounter tissue trabeculæ were lined with delicate low lairly the best bistological examples of a distinctly styp cal may be

n which They usually tend to an ex car se o rig o Thada cal of thelium, giving a glandular charact r to the picture

In performing a curettage ten weeks allel an abortion in another case the author found strikingly numerous stypical vascular proliferations in the hi The fill to the the ham

O arm I was Irrediction in Cases rat me t ute 1 s?)

tum of cell promise to man -an saffammatory reaction and become definitely

The author de cusses the applicability of the roent tm at of

аll 0313 case to which tel was of i hamatocete

It is indicated by Hit uterus in the cases of women approaching the m onaus by b esity by carda and renal de

breadths The I rays are u.c. and when there is difficulty in the application of radium In the author's opinion operation is the method

of choice with the few e ceptions mentioned S LVATORE DI 1 IN M D

I Faperance E S Ea ly Carcinoma of the Cervix Am J Ob 1 & Gyn 10 4 V 461 of emosis of c neer s realiably the

this limits to Has

account of it relati ely feeble is sitr tive distin is fa orable for r dical emoval if it is recognized

f he cer

Cervical erosions a u ec ly constitute the largest percentage of so call I pre esquity expenses on ture of the cervit If unspection of the cervix reveals even a small

nomen of cancer age however benign th y may appear and if the importance of histological examina tion of routine gynecological material especially tissue removed from the uterus and cervix were em phasized suff ciently a distinct advance toward the

early diagnosis of cancer would be made In conclusion the author states that when we

the importance of complete physical examinations

EDWARD L. CORNELL M D noma of the cervix.

Leland G A Jr Mass ve Dose Radium Treat ment in Carelnoma of the Uterus Am J

R 1g nol 1924 11 373 7 L

is the objective

t The likelihood of fistula formation 1 not great er in unscreened radiation than in screened gamma radiat on

Adjunctive cauterization and external radia tion have not been found of sufficient value to be u ed as toutine procedures

HARVEY B MATTHEWS M D

Daels F and De Backer P A New Technique of Curle Therapy of Cancer of the Cervix Uterl B 1 J R del 95 2 315

The authors give the following reasons for the

the 147 traced twenty-one (12 7 per cent) were well after three years four were alive with a recurrence and 122 were dead. All of those with advanced carcinoma were dead

Massive doses of unscreened radium averaging 5 000 mc hr per ind vidual treatment are recom mended and used The use of the largest safe amount of rad um for a short period of time is p ef erable to the use of smaller amounts over a longer period of time

In reference to the react on to heavy radiation the author found that the symptoms varied a great deal in diffe ent patients with reference to the 1 me of their onset and their duration and seventy. The symptoms are pelvic pain bladder and rectal irritation and general malaise. The post radiation rea t on is v ry largely in di ect ratio to the amount of sca tissue present in and about the ceruix and uterus and pelvi

unes are praced also in the crater in the varina

The first series of tubes is placed between the sachsal spine and the edge of the sacrum by means of the technique previously described and with the and of the half circle The second series is placed by means of long slightly curved tongs introduced through an secision made from the region of the anterior superior diac spine to the sciatic spin a d

mu the middine and passed extraperito-

neally beside the bladd r to a low non son at about the level of the middle of the arch of the pr bis The first two series of tubes are brough "

Of the thirty three cases of metastatic carcinoma only seven tere of the Knikenberg type This is particularly surpris ng ince the rare in m

u the chain of the senes Roent genograms are included in the article

A laste Laste WD

.

Pnlln

۲ ŧ

Pith logy and

Schreiner B F A Summary of the Chalent Results After Irradiation of Cancer of the Certi Uteri 1 3 Reign! 1924 x 36

> Bilateral cristoma was found in only two cases whereas benign papilliferous serous evatadenomata were bilateral in 19 per cent and the mal grant type was bilateral in a considerably h her per centage

from the outsi le

s but the disease was ultimately fatal History B Marryens MD ADNEXAL AND PERIOTERINE CONDITIONS

. fed | te at ascites in is per cent and myoma in 103 per tent Tentoneal metasta es developed in 7 per cint Bilateral removal of the ad ea

This article is a state tical study of 670 co es es with 682 ovarian tumors 71 3 per cent of which vere benign 18 per cent malignant and o s per c nt questionably benien

betateral cases the rare papillary form wa found me for ally

713 The symptoms varieu

are of the patients with this type of tumor was 42 5 year The oungest was 10 and the olde t 76 years. Thursy three and nine tenths per cent were at the menel an t In 4 r per cent of the cases a dermoid was present at the same time In he the dermoid

us 145 u 1 h section cystemats there were seven dermoids with carcinomatous de generat on There was only one teratoblastoma

Once

Carcinoma of the overy occurred just as often during the same period of life as carcinoma of the body of the uteris. Carcinoma of the cervix on the other hand occurred four times as often. Of In thirty three cases of metastatic carcinoma of the ovary the primary tumor was in the stomach in

ı

insignificant The average age of the patients was

adenomatous and solid carcinomata ranged from to 19 years and averaged 190 years. The ages of those with p endomucnous carcinoma averaged 43 6 years. In spite of their more advanced age the women with primary carcinoma of the owary are much more apit to be stentle than those with sec ondary carcinoma—no a per cent as a gainst 3 o 3 per cent. Augite occurred almost twice as often in

round cell sarcoma averaged 275 years of those with spindle cell sarcoma 457 years and of those withmused cell-sarcoma 322 years Asoatesoccurred in only 9 per cent of the cases Eight of the twenty two cases were cured. Both of the cases of endothel oma were cured.

The dermoid evisionata with their slow growth

nomata and g eatest in pseudomucinous carcinomata (7 a per cent as against 56 6 per cent) The cysia denomata with malignant degeneration occupy a middle place with an operability of 35 4 per cent, but these tumors cause the patient to seek medical The dermond cystomata win their stow growth produced relatively numerous symptoms. The average age of the patients was 34 5 years. Fertility was affected slightly. Suppuration occurred in 5 per cent of the cases. Hypoplasia of the genitals was found in only 4 per cent.

With the exception of a few cases death usually sealts from recurrence Recurrences develop most frequently during the fir tyear less frequently during the second year and only very exceptionally after the br dyear. In vice of this period of time only a 5 per cent of the cases can be considered cured most of these were unlateral cases. The blateral cases have a poor promosors even when they

aid early because of the r large size

The author of cuases in detail the complication of pregnancy by oarnan tumors Special attention is given to ovarian tumors which are first noted soon after pregnancy but were probably present before Of the twenty seven cases of ovarian tumor found during the pureprism three (ir per cent) were infected. Of forty nine cases of tumor treated during and after the pregnancy 55 per cent caused marked symptoms which at times became dain gerous and necessatiated emerg noy operation. In

g per cent of the cases spontaneous abortion oc curred

COLLEG

cutoma showed uterine metastases. Another car cutoma was found in only one case in this instance the other g owth was a pavement cell carcinoma of the uterine cervix.

The clinical symptoms of ovarian tumors are dis cussed in detail Meyer (G)

OBSTETRICS

PREGNANCY AND ITS COMPLICATIONS

Plass E D and Bogert L J Plasm Frotein

Y titlens in Normal and Toxemic Pregnan
ties B II Joh II ph s II p It it g 4 xxx

76

. . .

By plotting the averages of numerous plasma protein feteriminations upon the blood of normal

101

1/175
That before rathern therapy could be go en the

rad um therapy unike toentget therap do s not make

B lt g 1 22 145

Removated ex turnations of certain an per time in bood

to the

to mer t 1 3 reas to women suffering from the lat trams of p g names these than es are almo t invariably ac entire 1 their e t at be up determined largely by the

vagina

220

1

ction

cent

h or

responsible for the changes although they may augment the variations appearing when improve ment is induced by delivery The use of packing is indicated in secondary harmorthages due to atony when other methods fail and the harmorthage assumes a serious character about cases of cervical placenta pravia and invagination and inversion of the uterus. Of the 2rr wom

facts are advanced to support the contention but

effected through the vagina there vere only four

with higher plasma non protein nitrogen values than the period of the most acute clinaral uges. This blood introgen use is synchronous with a fall in the plasma protein percentage which ind cases a plasma dilutior. These variations may be noted after improvement induced by any therapeutic procedure, but are most marked after delivery procedure, but are most marked after delivery.

effective preventive postpartum hamorrhage

Drie ntr Lr L

Depken II The Treatment of Placenta Prævia (De B b ndiu g der Pla i prae 12) Ze i albi f Gy k 924 zivin 295

From a review of the literature regarding the effect of roentgen it adiation of the mother upon the child in the uterus and from experiments on animal regarding the effect of the roentgen 1335 on the germ plasm the author draws the following conclusions

In the Gynecological Clinic of the City Hospital of Bremen in the period from 1997 to 1913 there were 294 c see of placenta prævia in 20 193 deliv

on metreurysis was 3 c per cent that of Brayton

Inches version 154 per cent and that of internal

r Sexually mature somen should be subjected to irradiation only exceptionally 2 I regnant women should never be subjected to

version and extraction 25 per cent. The high mor tality of the last procedure mentioned is to be explained by the fact that contrary to rule extraction has done in many cases when the cervix was not

entirely dilated of h

entgen treatment
3 In the cases of pregnant women extreme care
mu t be taken in the roentgen diagnosis

LAMERS (G)

LABOR AND ITS COMPLICATIONS

Vogt E Ut ro aginal Tampon de (Z 1 kn k der Ut 4 S b d t mps de) Z 1 lbl f Cy \$ 924 l 95 t t

Si ce 1907 th Tuebingen Clinic has employed uterovaginal tamponide 211 times in 12 000 4

L uze s used

It is important to pack the cavity of the body of the uterus the cervical can I and the vagina with equal frimes. As a rule if a not the vagina with the end of the ty fur hours. It is of value the elybe cuse of its effect; a stimulating labor pains. Its harmostatic effect is of secondary importance.

PUERPERIUM AND ITS COMPLICATIONS Philader L. A Company in S. d. a.

I theseer reviews the various theories regard no the pathogenesis of eclamosia and calls attention to

into the musculatu e). In manual deixers and su version there is dang t of causing damage by teat JDD.

The intreased I neer of infection in placenta prayer is due to chemical changes in the warmal

treatm at of choice is extered section

Discents he saw the Cause of anaphylactic shock

In experiments on rability Pelaster projuced anar hylactic shock by injecting the blood of another species. He then studied the I sions in the liver and kidneys The I ver showed va cular change hypersons thromboses hamorriage hydrome degeneration and atrophy The Lidney showed similar vascular changes which were most marked in the cost x codema of the clom ruly and c lister changes in the convoluted portions of the ur nar-

tubutes The findings in these experiments were very sim far to those reported by Bar for eclampsia

ATREAT F DEGROAT MD

aken only

Glu

The author reviewed the record of 227 cases of

Hamorrhage can be successfully stopped by this procedure and thereby the danger from inject on markedly decreased "exarcan section gives far b ther re ults than any other method of delivery not hildren is

trabibly of the trasu s

tute 1

Тb

Of ninety nine cas s of placenta i revid treated at th Dues eldorf Chr c s nee 1912 de'wery was effected by casaread secti a in forty pire (48 5 per cent) Of the women subjected to this operation

s As compared with the total number of cales of puerp tal fever thos in which p ces of place t were expelled or removed during the puerperium were few (2 per tent)

Section of the uterus should be done only by

hm Ah

urgeo s experienced in the operation SCHULTHELS (G) 2 Retained portions of placenta may cause puer

peral infection

3. The fact that retained portions of placenta
were found at autopay in 30 5 per cent of women
who did of sepas indicates that retained placenta
plays an important role in fatal puerperal sepas
even though no defin te anatomical proof was obtained that it was the immediate cause of the in

In conclusion the author cites ten caves in which retained portions of placenta remained in the uterus for several weeks without causing fever and were ultimately removed late in the puerpernum on account of harmorthage.

Bonga dt 11 Puerperal Tetanus (Teta s p er neralis) D sse t tio Fr nkfort 1924

n -

sponded to extirpation of the primary focu or large doses of scrum

Puerperal tetanus as well as traumatic tetanus as he fought only by early prophylaxis. Fre quently it is complicated by infection with the gas gangene bacillus as the latter is favored by the same cond tions.

The author reports a case of puerp ral tetanus which came to a fatal termination in spate of extra pation of the uterus and the admisstration of large doses of serum

Bongard (G)

Philitips M II Routine Pel Ic Examination
During the Pue perlum B I II J 9 4 II

Antenatal examination is today attracting much attention this is in accordance with the modern day re to promote preventive medicale. For the me reason it is very desirable that a thorough

variations in the rate of involution of these structures. Suitable early treatment will lessen the in cidence of vaginal prolapse.

In some cases lochia will be found pent up in the uterus. As a rule the organ is then unduly ante flexe

the the

preferably a broad Hodge pessary. In primiparae there is a considerable chance of permanently cur

the test of leaving it out is made. In some cases retroversion may not occur until the third or fourth neck. CARL H DAVIS MD

NEWBORN

M cHaffie L P Cerebral Homorrhage in the Newborn C d M Ass J 1924 x 1773

punctures have increased our knowledge. The

syphils etc

c ver d in such an examination are incompletely lealed lacer tions. It is obviously a simple duty to

I caled lacer times. It is obviously a simple duty, to pect a r paired permean or againal outlet to see it that so compile the based but tears occurring in the upper again—even in unassisted labors—are often not i und and sutured immediately. Such a ras heal by cond intention not seldom with the i rmat on i granulation tissue which may profilerate to form grunton opolysu of considerable size. If typ when found can be punitessly simpled acce. If typ when found can be punitessly simpled some with the carbolic some which were carbolic.

Delayed involution of the vaginal walls and pelvic floor will be recognized asily by one who accustomed to these examinations is aware of the to y causes to many cases

6 When the infant is drowsy and has a feeble or an extremely sharp cry

7 When the refault shows marked naffor and a rapid loss of weight

The treatment is lumbar puncture frequently re perted and blood transfusion or the intramuscular administration of from 20 to 30 ccm of blood.

The transfusion or injection of blood may be re

cocytes

The other case was almost identical from the point

kennedy R L J Duoden ii Ul er and Melana Keonatorum 4m J Di Ch d 924 xxv 694 In two cases of melana neonatorum siriking pathological findings were made Both pati his

ding the

GENITO-URINARY SURGERY

ADRENAL KIDNEY AND URETER

Jaff II L The Influence of the Supracenal

or were killed Latitut tilytil til til a tit u.u. in luce compensatory secondary hyperplas a in in which decompose urea nephrectomy is contra indicated. In other words the basis for the choice of operation for kidney stone ; the careful bacter lological examination of the urine from the two breters.

the growth stimulating influence exerted on the themus following suprarenalectomy the medulia tegenerating before the cortical regeneration is complete

The mechanism involved in such a thymic re

keynes G Squamous Cell Carcinoma of the Renal Calix B 1 J S 1 10 4 1 224 Mitan f 5.

emplogical role in two of the three most common

the size of a child's head had form d 5" b

In the second case the mal gnancy was associated

with hydronephrosis of the congenital type. The

cortex was thing d & nl

is a large thymus which occurs in status lymphaticus nd the regeneration which o cu > in Addison's and Graves d eas are brought about by the sam disturbances in glandular i terrelations that hong about I generation of the thymus in the experi mental a mal after suprarenalectomy

LOUIS NETWELL M D

ing C M. Infections a Cause of Recurrence Following Operations for Kidney Stone At hr t S d 9 4 h 1 387

The third case represented what might be an early type of the condition found h

ii i unit red in every case to preve I such an an infection I speri nce shows that the majorit of ch LN

th 34

225

7 When the injant shows marked pallor and a ratid los of weight

The treatment is lumbar puncture frequently repeated and blood translusion or the intramuscular administration of from 20 to 30 ccm of blood. The translusion or injection of blood may be reIn one case the cause of the homorrhage into the astro-unlessinal tract was demonstrated at autopay. On the antern ewall of the first portion of the duckrum about 1 g. cm. from the pyl c. ong was an uter men uring 6 by 4 mm. A large clot of blood filled that part of the duodenum and affered to the central point of the duckrum and affered to the central point of the uter. The remainder of

Kennedy R L J Duodenal Ulcer and Melsena Neonatorum 4m J D z Ch W 10 4 x 604

In two cases of melana neonatorum striking pathological findings were mide. Both patients were female infants who were normal at birth and bled to death on the second day of ht. The bleed ng and clotting times were normal in one but in the other were not determined.

cocytes

The other case wa almost id stical from the polut of view of the hator, and pathol meal findings but the ulcer was overlooked at autop y and not discov

and becau e they serve to exclude melana from the list of conditions included and r the name barnor thank disease of the ne born other sequele caremony and other pathological con ditions of the cerux large growths in other pelvic organs and inflammatory evudutes fhe importance of displacements of the uterus is often over

General conditions such as diabetes m ipidus and diabetes mellitus ovaluria and chilling of the extremities especially of the feet must not he over

In some cases the bladder capacity may be dimin

found in increasing numbers

Neuroses are frequently associated with tabes and occasionally with permiciou anemia or functional motor nerve disturbances. Marked allevia tion of these symptoms follows the treatment of the associated condition. Functional nerve disturbances are rate.

be se

der and are usually located at the sph noter

LOUIS NEUWELT M D

Gau " M D

When the usual e pectant treatment is given tuberculous less os of the bladder remaining given rephrectomy severe a my toms often persect for severe 1 years As soon after nephrectomy as the evident that vesical lessons ar not u deg on green on they should be treated by electrocagnils are on the whould be treated by electrocagnils are soon to be a severe to the persecular to the severe the persecular to the process with ds per ance of the sum troms the process with ds per a more of the sum troms the

In four of the six cases reported the lesions have completely disappea ed In the r m m g two which are still under treatment they have re gressed there is maled improvement in the appear ance of the interior of the bladder and the symp toms e much less make in

In m st of the ca es the lessons were t eated by elect occognitation m ny months after the ne phrectomy. The earliest t timent was given one month after the operation and the latest after six

years A complete cure of bladder lesion has been obtained even when the general condition was poor because of the pre ence of pulmonary tuberculosis In general beneficial results have been obtained in from four to twel e months

The selection of cases as of importance. Hyper amor edematous and irritable bladders without ule ers or granular lesions should not be treated by this method. In such cases irrigations and general symptomatic management ar indicated.

The treatment should not be repeated upon the same fesion before complete cicatrization of the previous coagulation lesion has occurred Occa

GENITAL ORGANS

Handfield Jones R M The T eatment of Malig nant Disease of the Testicle Lancet 9 4

11

series of experiments it was found that the glands on the right side like either in the front of the inferior vena cava or between it and the sorta while those on the 1 ft side are the devirelated to the inferior mescateric artery. These lymphatics often communicate with each other.

In simple orchidectomy the cord is exposed in the ingunal canal freed ligated at the internal ring and then divided with the Paquelin cautery. The te ticle is then freed and delivered through the wound with gentle traction and pressure. If the skin is involved a racquet incision is made and the

as lig

(night sid) the peritoneum being pushed inward. The spermatic vessels and lymphatics are cleared upward from the protunal end of the lighted cord to the infer or year cg a. The artery aid vein are clamped higher b. d. b.

from the and the a near the l

the test cle is r moved as in the s mple operation

A compar son of the results obtained in twenty

A compar son of the results obtained in twenty two cases with the simple operation and those obtailed by H man in seventy mine cases with the radical operation show more favorable results for the simple orchidectomy. A cure after metastasis has begun is practically impossible

lates

These three patients were on the service of Gask and were operated upon by Dupbill CLAUDE D PREXER, M D

(arson W J and Goldstein A E Experimental Nephrotomies South M J 2024 TV1 786

A new method of hephrotomy based upon the results of arimal experimentation is offered for

HLADDER TRETHRA AND PENIS Ster na W E and Arthura E Tie Fennzie Blad der J dm V ist 1924 it a 18 6

of a physiological clot

pressure usually cause retention of unine imme d stely after childbirth Later when the detru or muscle has regained its tone in a measure there may be frequent urination due to residual urine and in

fection Contrary to general opinion cystoreles are fre quently unaccompan ed by residual itine or infe tion Residual urine is present in 80 per c pt of postpartum cases and is almost always present fol

Partial incontinence in wom a during coughing crying faughing or sneezing is usually due to locera tion of fibers of the bladder sphinet r

importance in explain og the g eater frequency of

quency with which urethral stricture and sagging of gestion present in all of the pelvic organs at this the p ster or wrett ral wall are re ponsible to blad der d sturbances in nom n these conditions a c

mm

crated The ng labor the bladder and the tasses agr

resse such sciill a bile o metritis ppend cit s pencystitis pe itomiis and

SURGERY OF THE BONES. JOINTS. MUSCLES, TENDONS

CONDITIONS OF THE BONES JOINTS MUSCUES TENDONS ETC

Fairbank H A T Some Affections of the Erich yses P Roy Sc Wed Lond 1924 Sect Oth D 1

Slight separation of the femoral head 1e an early adolescent coxa vara usually occurs at about the sixteenth year of age and is due to repeated trauma The patient complains of a progressively increasing limp and of pain which becomes more severe when abduction and internal rotation are attempted The \ray reveal widening of the epiphyseal line and depression of the head on the neck Such a lesion is easily overlooked unless a and of the separated internal encountyl between the CH STER C GEY M D humerus and the ulna

Findley L The Und rlying Cause in the Patho denesis of Rickets J tm W Ass 10 4 1 u

Experiments have demonstrated that the physic logical process of rickets is definitely influenced by at least five factors-sunlight exercise Vitamine V calcium and phosphorus-but they have not yet

mains as incapacitated as ever after its use. His experience has shown that severe cases improve

deheiency in the calcium content of the skeleton

rectus muscle

The author suggests that the cause of the condtion may be a specific infection influencing the reac t n of the intestinal contents in a certain direction HERM & C. Schmit. M.D.

Wyman F T and Weymuller C A A Clinic for the Tr atment of Rick to with the Ne cury Vap r Quartz Lamp J im W A 924

In 923 a special clinic was organized in the Children's Hospital Boston for the treatment of rickets with the mercury quartz lamp

The source of the ultraviolet tays was a direct current all mercury Alpine sun burner

so ic tion are u u lis p esc t and the feet are flatt ed Th cond ton s b lateral and occurs in girl twice a ft n as in boys Rest and arch's pro ts e indic ted

own by the \ as must not be confus d u th multipl centers of assific tion in the pphysis

The tubercle of the tarsal c pho d te the os

Rest and mm bilizati n will usuall effect a cure

In c ses I mjury about the a kl j int the ra e nn 11

Th 1 trale

stellu inree times a week

I ray treatment is dangerous and its results are be done by placing the child on a so-called enurence gives relief

practically nil Radium implantation sometimes regime The patient should be placed under the best

h f tihnt

CLAUDE D IN RELL

MISCELL ANEOUS

Gibbs D II The Psychological Pacto in Enure

h arres reexcling

stream several times while he is to me teaches him bladder cortrol

The best time to awaken the child at night to empty his bladder voluntarily is a few mi utes be fore the time he habitually wets the bed which me t me ach night

of ancontinence

spins.

the con maat

fetulr etc

gresses the 2 a m a vakening may be omitted. The awakening should be done on the minute. The patient should be required to get out of bed turn on the I ght go to the t slet and after he is thoro ghly

anake a luotards empty his bladder The atter concl. des as follows

ce n

ta method of treatment is u

empering of the busin t

prochic effect. After removal of the underlyt g cale and the c stributing factors the habit of un consciously emptying the bladder must be corrected

HE TY L S N ORD M D

habit of unconsciously miss & usually remain and must be overcome. This may ilolm G Myositis Infectiosa (B tra g ur kennt n d Myosit 5 nfe tiosa) A to ch rg Scand

1924 l n 415
Following a brief recapitulation of our present
knowledge regarding the etiology clinical course
and pathological anatomy of myositis infectiosa
the author adds seven new cases to those reported
in the literature.

t 1 a a oct ha cos s. One of the cases to ported showed that the musculature of the larvax

last minitioned were fatal autopay showed that both of them were complicated by abscesses in the lungs and ione of them by abscesses of the kidners. In one of the two remaining cases spontaneous re sorption occurred and in the other the pus proved to he sterile.

Burlend T H and Hatries D J White Myeloma of the Radius Bri J S & 19 4 54

later was good

eriquery were large giant cells. In a groundwork of loosely scattered cells there were areas of closely packed spindle cells. Most of these spindle cells surrounded a nite il.

los ble caus s of my clomat a e the following

A local injusy to the periosteum resulting in

by wandering cells from some other part of the

These hypotheses are discussed in some detail t Chincal experience seems to indicate that the last one is the most probable

The article is illustrated by roentgenograms and photomicrographs Herman C Schull M D

Leskinen S The Results of Conservative Treat ment of Tuberculous Spondylitis (Uber d E folge der kon vatives Beh nälung der tuber kulossen Spondyl iti) Acta ch rg Sca d 924

This article is the report of an analysis of 220 conservatively treated cases of tuberculous spondylitis Of the 220 patients 52 3 per cent were males and

occurrence of abscesses in the cervical thoracio

e e e e e e multiremist two

C ma

of cervical involvement 21 t per cent of those of thoracic involvement and 341 per cent of those of humbar in olvement

The mortality was 48 1 per cent in the cases of ber d tary tuberculosis and 36 8 per cent in those of non hereditary tuberculosis. Healing occurred in 28 9 per cent of cases of the former type and 31 t

with the ab

pital care

Whitman A Observations upon an Anatomical Variation of th Lumbosacral Joint J B & J 15 g 1924 vs 808

The author describes five cases of a condition healls prespon iylol sthesis Prominence of the

2 A change of metabolic origin resulting in th nges in the chemical composition of the bo All of the eighty six cases of acute nickets treated

of tuberculosis of the bones and joints Roentg n
ray treatment should be comb ned with the approved
surgical and orthopedic measu es LOEME (Z)

Murphy J T Adam stine Epithelioma Rad !

Hass J Roentgen Ray Treatment of Tuberes lo als of the Bones and Jointa (Z Roe tg abe ha dlung dr Knochen u d G lenktub rkulos) Hun kin lich sch 1924 xx u 435

.

atrongly
According to the latest views the roentgen gav

as the cystic tumors. The period of development of the former ranges between one and seven years and averages about three years. The semisolid type evolves in from one to fifteen years and the purely

the anterior wall of mucosa is depressed a parch m nt like crepitation is heard. This is pathognomonic of these cy tie tumors of paradental or gi and

the multilocul r mats

Cystic tumors may progress to an advanced stage ithout causing pan When well advanced they may interfe e with mastication ph nati

open tuberculo s the d scharge is at it t i also rarily increased after arrad at on F stule usually close after a short time. Hass believes it wrong to rely entirely upon the reentgen ray in the treatment

growths
The danger in adamantine epithelioma lies i
local extersion of the tumor. Therefor, the trent

photomicrographs

. ..

Holm G. Myositis Infectiosa (Be t. eg. zur K. t. nis d Myositis i f ctiosa) A to th use S ad 10 4 1 H 475

Following a brief recapitulation of our present knowledge regarding the etiology chinical course and nathological anatomy of myositi infectiosa the author adds seven new cases to those reported

in the literature These new cases indicated that the entire palpable s velling occurring in some stages at an early stage and much of the swelling occurring in some ad vanced cases may be caused by a local tomic cramp

S.E. DI D. D. DI GEL DALLOSIS. UND CO. LINE GASES DE ported showed that the musculature of the larvar

may be affected by myositis infectiosa

The infection was due to staphylococci in three cases streptococci in one case and both staphylo cocci and streptococci in one case. The two cases last mentioned were fatal autopsy showed that both of them were complicated by abscesses in the lungs and one of them by abscesses of the kidneys In one of the two remaining cases spontaneous re sorption occurred and in the other the pus proved to be sterile

Bu I nd T H and Harr es D J White Viyeloma of the Radius B 1 J S g 1914 Ru 54

later was good

Most of these spandle cells tu p nic en

\ cha ge of metabolic origin resulting in changes in the chemical composition of the bone

by wandering cells from some other part of the body These hypotheses are discussed in some detail Climical experience seems to indicate that the last

one is the most probable

The article is illustrated by roentgenograms and

HERMAN C SCHUMM M D

Leskinen S T ment of E folge de

kul

This articl is the report of an analysis of 220 con servatively treated cases of tuberculous spondulitis Of the 220 patients 52 3 per cent were males and * = 5 = 5

occurrence of abscesses in the cervical thoracie

1 u within the mist two

Compl

ot cervicat involvement ar i per cent of those of thoracic involvement and 34 r per cent of those of 1 mb

sees es increased the mortality rate to 49 per cent and reduced the healing rate to 17 6 per cent. The prognosis was unfavorable also in cases with tuber culous changes in other organs

In general it may be said that the incidence of healing varied directly with the duration of hos pital care

Whitman A Observations upon an Anatomical riation of the Lumbosacral Joint J B Jo 15 1 19 4 808

The author describes five cases of a condition he calls prespondylolisthesis Prominence of the all of the cighty six cases of scute rickets trested re I reth mor

of tuberculous of the bones and joints Rcentg n ray treatment should be combined with the approved LOSSE 12/ surgnal and orthopedic measures

Murphy J T Adam nine Epithelioma R d of PEY 1924 11 377

The author reviews the literature of adamantine epithelioma About 100 cases have been reported

Has

ŧο

tı roe tgen ray treatment almost without us it nation It is impo itle to warn against this too tronger

According to the latest views the roentgen 12)

increases it gradualis until ne o w fortis which is just a iff evently marked

t

n of the

The d ger n adama time epi helto na lies is lo al extension or the tor c. To r fore the t eat ment should er ass t of n de acusion of the growth with the actual of el etric caute y and with com

plete removal of all epithel at it "ue CHESTER C SCHAFTDER IF D

open tuberculosi the o the state a unity raphy mereased after nr dathon. F stule a unity close after a short time. Has belie es it wrong to rely entirely upon the roentg a ray in the treatment

233

On the basis of the re examination the author

fivation is much less irksome to a child than an adult If possible the arthrodesis should be undertaken before the school age is reached in order that it may

all attatones 5 on the 5 out 1

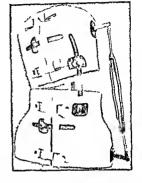
In no less than six of the eight cases function of the elbow has been manifestly improved by the

abduction From 80 to 90 degrees is probably sufficient Slight out and rotation of the arm seems best to counteract the tendency frequently noted toward a pronated posture of the arm

Neumueller II and Orator \ TI e Treatment of the Ca pal Ganglion (Zu Beha dl gd Cat | Iganglen) De Ische Zi k f Ck r 9 4 lt v

As extirpat on of a carpal ganglion is followed by recurrence in 30 per cent of the cales the authors have used the folloting new potentials bed on the pathologic studes of layr and Leble hoe

Under local anasthes a the top of the mass is



jacket is applied from the axilia to below the greater tro hant: if The jacket is immediately cut off by vettical incision in front and is then filled with plaster. The torso is trimmed shaved and filled

and divided transversely at the le tl of the apex of the curve and fastened together by a garden pate

with silk

In this man er an immature ganglon which has at 1 dt cy to hydropic deg eratin a sdrai ed sufficiently and the mot important cause of recurrence is removed. Of fift on patients for teld in this manner only 13, a per cent had a recurrence.

LANGE (Z)

Lovett R W and Brew ter A II The T est ment of Scolio is by a Meti d D fi rent from That U wally 1 mpl 3 ed J B & J 1 5 r. r. 9 4 847 Kl in A Subsequent Report of the Treatment of

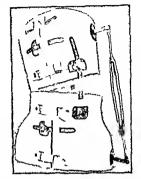
Structural Scotlosis at the Ma aclusetts Ceneral Ho pital J B & J 1S g 924 858

Lovett a d Brewster recommend the following procedure in the treatment of scobos

The patient is suspe ded by a head sling with the toes touching the floor and a closely fitting plaster upper and lower segments out in the des red angle to each other

contenty of the dorsal curve a plaste cast is applied and wind we are immediately cut over the hollow sid behind over the lower ribs and diago nally opposite in front angle between the sacrum and the lumbar some ~ ~ hed leut bta. for age of the posterior capsule is I commended In pseudarthros s of the femoral neck the he d here g ı 1 an Ď 5 to Norde Bek SURGERY OF THE BONES JOINTS Odelberg A Seven Cases of Arth opla ty dis MUSCLES TENDONS ETC Live of the seven arthroplastics reported v re Spitzy H New Operati e Methods in Ortho pedie Surgery (h. u. pe ats. W. ge. 1. stho-1. d. ch. n. Chinurgie). W. at. B. ch. s. p. 4. > 57 Aspland G The Function 1Re ult of Arth od is of the Shoulder Joint for Puralysis f the Deltoid At A g S nd 924 1 1 3 4.1 ye is ago In seven of the eight cases the functional result bet een so and 150 degrees in four of the ca also on the arms himilar rules apr ly to the treatment of congenital or acquired deformities In contracted tal pes tal tactory are ut l h pe if n n v d a piece of the po e

On the basis of the re examination the author



In no less than six of the eight cases function of the elbow has been manifestly improved by the arthrodesis operation on the shoulder

No scoliosis of any importance has resulted from the operation in any case

With regard to the technique the author warms against fixation of the joint in too pronounced abduction. From 80 to 90 degrees 1 probably sufficient. Slight outward rotation of the arm seems best to counteract the tendency frequently noted toward a pronated po ture of the arm.

Neumueller II and Orator \ The Treatment of the Carp | Ganglion (Zu Beh dl. g. de Carp | ga.gl.) Discle Zichr f Ci rg 4 cl. xx og

As exti pation of a carpal ganglion is followed by recurrence in 30 per tent of the case the autho's

jacket i applied from the avillae to below the greater trochanters. The jacket is immediately cut off by veritcal inci von in front and is then filled with plaster. The torso is trimmed shaved and filled until it repre ents a somewhat better position. On the corrected torso a plaster jacket is applied and then immediately removed by a vertical anterior

outward by catgut suture and the skin i sutured with silk

In the manner an animatu e ganglion which

te i acaonae

LA GE (Z)

Lovert R W and B ewsr r A H The T eat m nr of Scoliosis by a Merhod Different from That U wally Employed J B & J 1 Sr g 0 4 847

Ktein A Subsequent Rep t of th Tr atment f Structural Scollosi at the Mas a hu tta Gen ral Hospital J B Jo 15 g 19 4 8 8

Low tt and Brewster recommend the following procedu e in the t eatment f scoliosi

The patient s s srended by a head sling with the toes touch g the flor ind a closely fitting playter

the do sal curve of the spine the lower extremites being suspended in the opposite direction. The shoulder guide 1 rotated to vard the side of the conventy of the dorsal curve a plaster cast is appled and wando var unmediately cut over the hollow side behind over the lower ribs and diago mally opposite in front continued as before

The cases reported by klein have been observed over a period of from eighteen months to three and one half years and have been without corrective

The seven patients whose cases are reviewed ranged in age from 13 to 17 years. In the cas s of three boys the feminine habitus was a ggested

servative treatment

Lovett and Brevster attempt d to correct all

Wilson P D The Treatm nt of Di placement of the Femur J im M Ass 1924 Is 1 1749

Wilson reports seven cases of di placement of the epiphyseal head of the femut in which operative

accucut

en ed h bihe

B own I T The End Results of Stabilizing Operations on the Foot J B n & J 1S 1 9 4 839

applied with the 1 mb in abduction and internal otat on

estentone After from ten to twelve eths the

t b aring t he end ton

CHESTE C O

Taylor R T Foot Drop A New Operation for its Relief So th M J 19 4 xxn 849

One of the most frequent causes of Impung is foot drop This condition is of the following types r Foot drop due to paralysis of anterior leg muscles and marked by plantar flexion of the entire

foot at the ankle wint 2 Dropping of the foot anterior to the medio tarsal joint following paralysis of the short and long

extensors of the toes 3 Foot drop due to gravity occurring in dangle 1

foot The author d scusses the treatment of the first two types Becau e of the inconvenience of braces their initial cost and that of their upkeep various operative methods have been used. The tenodesis of Hoffa in which the tendons of the paralyzed

have torry multiple arthrodesis and scaphoided tomy are applicable only to severe cases The use of silk sutures often results in severe deformity

right angle. A cast a then applied for six weeks and weight bearing prevented for four weeks. There after massage muscle training and electrical

FREMONT A CHANDLER M D

the the to t at a

Fre be g A H Again the Operati n for Hallux Valgus J Am M A 94 l xx1 9 S

While Silver's plastic ope ation approaches the d al f

was east into oper tion has pro ed suc cessf l in many cases. Its f ilures have been due first, to limited mobility in the jort se and to short ng of the first toe and third to continuance of abduction Fr berg considers shorten g of the toe an advantage The abduct on is du to shorten ing of the tenso propius tendon and abnormal

I ngth of the I ner s de of the cap ule a satisf ctory flueter oper tion the 1 int capsule must b opened so as to provid a plastic fl p which may be used to mai tain an adducted

shaped and care be taken to remove all spurs of

RUDOLPH S REICH M D

FRACTURES AND DISLOCATIONS

Sch-- 4

CEXTO I O

of the destroyed joint cartilage In epiphyseal fractures also unhindered by peramia is of great importance HARMS (Z)

keller II Practical Points in the Diagnosis and Treatment of Fractu es Md J & R CX Sppc 3

Fractures may be divided into those of the draphyses and thos of the eniphyses. In diaphyseal fractures a false point of motion and overriding are more marked than in ep physesi fractures Epi

s so and age incidence of fractures

The diagnostic points of pain foss of function de formity false points of motion and crepitus are de cussed Fractures of the neck of the f mur of the

cleansing with gasel me todine and alcohol and pro tection with sterile drestings are all that is necessary in this cases they and treated as simple fractures.

the diagnosis of vertebral fractures
Compression fractures of the os calcis onstitute
oo per cent of the fractures of that bone. They

this fracture

or plates is to be condemned
fin cases of non union bon graft; g a contra

l Else

On the basis of an expenence with about 8 000

X ray

In the treatment of fractures properly applied

poned until sell col in the a machilization of Joints is to be avoid d only in cases with orice arthrits

PREMONT & CHANDLER M D

Starr C. L. The Treatment of Compound Fractures of Long B nes 1 1 a Stat M Soc 9 3

w had to e let

walking In addition to factors of a local nature (acclusion of oft parts refection of the fragments large def ets in the bone) an import at cause a improper tet twent. Too Ittle consideration is

corrected the put of a come by approximating the origin and insection of it much

In tertain typical fra t res such as exten on fr ctures of the humerus the conditio are impl

but in fractures of long bones it is often difficult to determine the middle position of a fracture in a region in which are inserted many muscles with cases were u ed as a control series. It was found that the normal calcium and phosphorus product lies between 35 and 40.

Petersen concludes that in case, of non union

Petersen concludes that in case of non union there is a constitutional listurbance evidenced by a deficiency in the concentration in the blood of the the us or calcium or both

RUDOLP 5 REICI MD

good fixation bandage or extension apparatu every

A number of fractures do not permit primary reduction. These he on the borderline between fractures requiring operative treatment and those for which constructive treatment is such ated. A peculiar position is occupied by fractures of the verticity which cannot be reduced primarily by

tra a ticular fractures which present no point of attack for reduction and by certain joint fractures which can be reduced but cannot be maintained in refuction. Fractures of the femur below the head which show to tendency to heal should be operated upon by the Lorenz methol. Whitman has sucAirk N T End Result of 158 Consecuti Autogenous Bone Grafts for Non Union in Long Bones J Bone & J 15 g 1924 7 760

The cases of non union were divided into two groups (1) ununited simple fractures without infection thenty mee cases (2) war wound and other compound fractures with severe infection 129 cases. There were two failures in the first group and fifty three in the second.

Loss of substance was the rule in the second group in some instances it amounted to as much as 5 in In eight cases the entire shaft of the humerus with the exception of about 2 in at each end wis

missing
The g aft operation was never attempted until six

warns against too ea ly passive movement Early a tive movement 1 be t E GEL (Z)

P tersen II A A Clinical Study of Ununited Fractu es with Spec al R ference to the In o ganic Bon Forming Elements in the Blood Serum JB & J 18 1 5 1 5 4 885

In a study of unu sted fractures at the Johns

the grafting was delayed for another six months after healing. It was sometimes necessary to do a skin plastic operation to obtain sufficient good skin to cover the bone.

The inlay graft was used 115 times with thirty

pho phorus content of the erum e e dete mined at ariou intival it was found that in ever-

l L L mt murez

t t us quartz

s x cases with three failures and other bones in eleven cases with one failure. In Group 1 a success if I result 1 as obtained in 93 per cent and in Group 2 in 59 per cent.

Fixation of the grafts with chromic gut or kanga too tendon was finally abandoned because such ligatures were sometimes found to remain unab

unu ted It wa f und that healing de nit tak plac

tř

p somed through an opening in the cast. In the cases of Group 2 union was never sufficient for weight bearing until after from six to nine months

the erum we determ el n the cases of n ne pre sumably norm l p on with fractures and these

í

The most frequent cause of failure was infection This occurred in twenty two cases strophy caused non union in fifteen cases Refracture occurred in th ricen. In some cases the a cond fracture or curred as late as nine months. All of the econ? fractures were due to traums even though braces were worn

The author gives sixte n cas r ports illustrate !

th to ntgenograms William & Clark WD Deb

10

From experiments on rabbits the authors conclude

4 Communuted intertrochanter c fractures of the neck

5 Pertrochanteric fractures

6 Communut d pertrochanteric fractu es

7 Subtrochanteric fractures

truchanteric fractures

gestion that all tractures passing to gu o trochanteric mass in more than one plane be placed

energy apparently play a not inconsiderable role in the result. If while its productive capacity remains the bone is able to cru h the sear tissue I et veen th h hth barre r

lateral fractures belong all fractures within i c

ı of the rai ky are S MAY may heating

rem res about a year

3 The essential causes of non un on in medial fractures are probably to be found in insufficient ppo its a and ret ation of the fagments rather than in poor circulatory conditions. Theor tically

Fairin R Th Classification of Fractures of the Upper Fnd of the Femur 11 hr 1 S ad 0 + 1

Faltin R The Treatment of Fractures of the Neck of the Femu is his g S a d 19 4

Linds en U Ti Treatment of Fractures of the 1 11 55

Leu den aud De

Subcapital fractures of the neck

2 Tran cervical fractures of the neck Intertrochanteric fractures of the reck

չ եւ ջոտա restore function in a ca e of fracture of the fem rat reck in a young or middle aged per on mea s life long disability and in the cases of old persons is

fractures should be reduced and when this is done the adduction and outward rotation which are the deformities interfering most with function should

he corrected

Union cannot he obtained in consideration medial fractures and deformity cannot be cor rected in lateral fractures merely by longitudinal traction with a weight of a few kilos

reduction apposition and retention can be ob

patient in moving about on account of the strong

abduction and the weight of the bandage to The application of splints or bandages as justifiable as a primary method of treatment only in exceptional cases (in impacted fractures and on s tal indications) but may be of great salue in the after treatment as it allows the patient to get on his feet earlier

11 The method of resecting the head in suh

4 1 culod is to be

of th an u necessary

petter to attempt to produce an ankylosis than mobility because a mobility the femur slips easily ut f the acetabulum. The mod fications of the re e ! n which are I tended to produce an anky lo : mplic te the operation but may be necessary to pr ent the femu f om slpp ng ut of the acetabulum e pecally in ases of atrophy of the neck 12

va Spiking without arthrotomy is a simple procedure but not without danger and on account of the difficulty in giving the spike the correct direction and on account of the usually poor fixano of h n!

reduction in abduction and inward rotation Ιn 15 .

the femur are better joined by metal screws than by spikes

15 Pegging with bone should be done only in nseudarthroses and then only if the pseudarthrosi causes severe pain and the patient s general condi tion and age and the condition of the fragments warrant a favorable prognosis with regard to the

freshen and approximate the fragments and to give the peg the right direction. The peg should be made preferably of autogenous bone probably the hest peg a formed from a piece of the fibula without its periosteum

16 Many patients with pseudarthrosis of the neck of the femur can get alon very well with the aid of crutches or bandage. When the is the case no operative interference of any kind should be undertalen

17 Among the more common operations for pseudarthrosis the procedure advanced by Bracket is worthy of particular mention

LINDGREN lays down the following rules with regard to the treatment of fractures of the neck of the femur

1 Most fractures of the neck of the femur and all medial fractures should be treated at a hospital under proper supervision and repeated roentgen

2 Treatment should be given early

3 All persons with recent f actures who are not

to less than I cm before the fracture can be left to muscular contraction when a general anesthetic is

unite in a retention bandage 5 Fixation should be continued for at least inclve necks

6 The patient should then be kent in bed for another morth or even longer. Only a tive move ments should be permitted at first but later very careful nassive movements and massige may be

employed. 7 As a rule the injured leg should not bear veight before the ent of six months

8 Operation should be perf rmed only on pseu darthrosis attended with pain or gr at functional

q Loo e pseudarthroves in young persons should be operated upon as soon as possible I sender throsis in elderly persons should not be operated

cedure

in licated

disturbance

Campbell W C and Speed J S Fractures f the Staft of the Femur Sug Gyare & Obst

0 4 Exelt Q1

and of the catthen properly

technique 1 as follows

The patient is placed on an orthopede table and

Fett

en pt f Bi Forty ide d m Diago

CHENTER C. GLY & D

t tl the ends lock together ir umb

tion) f he himalleolar

> n į٧ ıd 5 m

howed a posterior ii & B ix and a small anterior marginal f gnient in

0.82 After reduct on mmobile tion a th Delbet or atus was don umme listely in twelve cases

ate

Follow up examination showed as a late result complete normal function in all cases except one

In communited fractures it is difficult to retain

rus foot de the instep

validism

Some surgeons among them Juvara advese operation as soon as possible after the accident in bimalleolar fractures believing that this bet as sures perfect anatomical reduction friebitates early walking and prevents a condary anatom cal desiron. Juvara and Ledere emblyasux the importance and sufficiency for good reduction of exact replacement of the internal malleolists by screw fraction. According to Juvara the posterior marginal fing ment of the thins is vausibly part of the auternal malleolists. The control of
Dival Baset and Championnier consider as ential and usually sufficient for r construction and correction of the outsard and bookward food unplacement the very exact reattachment of the extern I malleolus of the tibia by means of a screw They believe that a posterior marginal fragment of the tibia is more often attached to the e ternal than ten trail amileolus. The external malleolus

duction of the foot should be made at the subast regaloid not the midrasal joint. This can usually be done under general or preferably spinal anes thesa: A perfect result is best assured by reduction under the fluoroscope. At least an anteroposterior and lateral X-ray estimation should be made in mediately after the reduction to determine whether it is maintained under the plaster apparatus. When a fracture is reduced without the fluoroscope sub sequent X-ray pictures may show an incorrect position.

bula - ' | Liter by a Delbet am

stiff
the List Cases of pimalleolar
fractures without di placement the Delbet ambula
tors splint may be used at once The author has
traited turnly three cases success fully in this way

Open operation although certain to give perfect anatomical reduction and allow early walking should

tomic 1 nd functional recovery m y be obtained by non operative methods in most bim beloal and Dipupy te fractur's even these the a posterior marginal friginent of the tibia. The foot must be replaced forward and inward. The pronounced adto less than z cm before the fracture can be left to unite in a retention bardage s Fixation should be a numued for at least

ti cive neeks 6 The patient should then be kept in bed for another month or e en longer. Only active mone ments should be permitted at first but later vers careful rassive movements and massage may be

emplos ed a rule the injured leg should not bear

s eight before the end of six months 8 Op ration should be performe i only on peed larthrosis attended with pain or great functional di turbance

1. 11

ţ

1

edure

in licated

Campbell W G and Speed J S Fractures of the Shalt of the Femur Sag G) 5-06; 1924 431 641

LESTERL

D foot our under moderate stack o jured thigh is flere I to about 45 degrees and sightis abducte ! The fragments are then angulated under tl th ends lock together the limb F rry G The Non Operative It atment of Bi malleolar and Dupuytren Fractures Forty Two Observations (int bulo a letud derastem en sa glat des lett e bir 6 tures t le Dup 31 d pe 4 Fer ch 19 4 21 1 3 5 ber 1001

m h

chest to the tacs on use a on the uninjured limb

w l n the cases of

ER SIL SI After redu tio 1 mmob lizati n in ih Delber n mriediat l in t lve c se

previously It was possible to determine the exciting cause in only about one half of the fatal cases of embol sm

The disposas of femoral thrombous as well as of pulmonary embodium is based upon the well London pulmonary embodium is disposable and approximate the differentiated from sudden fatal occlusion of a constraint state, erebral hemorrhage and status lymphat state. Yes when dyspana is present it must be different ated from acutely de-elopung pleuropulmonary idaminatory processes. In cettain, cases encountries the state of the disposal and status and disposal disp

In the prognosis of thrombosis the poss bility of a suppuration or a secon lary embolism must be taken into ronsideration. Whereas the first of these com-

diameter William J Pickett M D

Lundblad O Three Cases of Embolus Two at the Bifurcation of the Ao ta and One in the Comm a lliac Artery Operation Act ch 1 g

Sc d 924 1 375

In the cases reported direct embolectomy was

the femoral arter-

Oil ecrona H A Second Successful Embolectomy in the Same Patlent illing S d 19 4

The patient whose case is reported was operated upon fourteen manths prevously for emboli m of the left femoral artery. The operation resoluted in complete restoration of the circulation Evidence of embolism of the right femoral artery with in complete exclusions appeared two days previous to complete exclusions appeared two days previous to before her admission signs of complete occlusion of the artery were noted.

It operation one hour later an embolus r cm

cli atton of the leg

land the Hot en L. A Ca e of Traumat c Throm both of the Supe io lens C ra with a Favor able Course (En I ii i m tich. The m b d let iii) met control to the late of the late

It is generally belived that a disecting ancuri man be caused by an injury to the thoracic wall. In general veins can withstand a very great and sudden pressure better than arteries. There has been been also better than arteries.

ni nitest thrombosis and emboli m is that g nerally practiced Scinistiz as (i.)

practiced Scinisting so (t)

Dunn J S B ne Marrow Emb lism of the Lunes

In a Rabbt I P th & B t I 9 4 s

4 5

The author reports an unusual case of hone mar
row embolism occurring during eye mental observation for another condution. The animal a rabbit
wighing 2 kilos had been unde observation for
richer days precous to the experiment. The ed

t

His patient was an army officer of years old who
suffered severe contusions of the head and chest

SURGERY OF THE BLOOD AND LYMPH SYSTEMS

BLOOD VESSELS

the blood stream injury of th vascular wall

Mason E C Blood Coagulation the Production and Prev ntion of Experimental Th ombo 1 and Pulmonary Embolism S rg Gyace & 05: 1914 xxx 4:1

and ruimonary Embolism S rg Gyncc & Ob 1924 xxxx 4.

A thrombus may be broadly defined as a solid mass or plug formed in the living heart or we sels from constituents of the blood. An embolism is the

me no t of the vascular system of

trace is made that by the givet

same as those of normal blood congulation three factors necessary for normal blood congulation either within or outside of the blood vessel are to use extract calcium and floringen. The most important of those in producing interassocial coloring is basis extract. In the epi menests per formed by the author lung extract was used because of its stability and potterny and the amic caused of its stability and potterny and the amic caused of its stability and potterny and the amic caused of its stability and potterny and the amic caused of its stability and potterny and the amic caused its stability and potterny and the amic caused in the cause of the particular and potential and the cause of the particular and the cause of the particular and the cause of the cause o

lung " rol mnt ms and the local

i moral th ombo is they occur m at vey the eighth day and in thrombosis of the great

treated by blo q t a s anticoagulant is indicated Cran. J Guestia, M D

mb is and Embelism at the

the spotum

With regard to the tim of the occurrence of pulmonary embolism the author found that the instributed larry unnurry over the

10 4 h 369

The cases reviewed include 34 oal labor cases one abortions and 13 437 generalizated axes. In the ganceological cases the abdominal operations for myoma about of the greatest frequency of thrombosis and imbolism pulmonary thrombosis occurred in 3 1 per cent and fatal pulmonary embolism in 1.55 pet cent.

The cause of the formation of thromboses is still unknown. Its occurrence is favor d by sloving of

previously It was possible to determine the exciting cause in only about one half of the fatal cases of embolism

The diagnosis of femoral thrombosis as well as of pulmonary embolism is based upon the well known symptoms. Plumonary embolism must be differentiated from sudden fatal occlusion of a coronary artery cerebral harmorrhage and status lymphat cuts. When dyspaca is present it must be differentiated from acutely developing pleuropulmonary inflammatory processes. In certain cases, nervous disturbances bystems eclampaia and diabete or unimo actions, many neuroless and nieura y must

be excluded

In the p ognosis of thrombos: the possibly of a suppuration or a secondary embolism must be taken this consideration. Whereas the first of these com-

diameter William J Pickett M D

Lundblad O Three Cases of Embolus Two at the Bifurcation of the Aorta and One in the Common lilac Artery Operation 1 to chr g Scand to 4 1 275

In the cases reported direct embolectomy was performed on the bifurcation of the sorta and on

the femoral artery

olivecrona H A Second Successful Embolectomy in the Same Patient ici ch & Sc d 19 4

The patient whose case is reported was operated upon fourteen months previously for embolism of the left femoral artery. The operation resulted in complete restoration of the circulation. Evidence of embolism of the right femoral artery with in complete occlusion appeared to days previous to the femoral artery with the complete occlusion appeared to days previous to the femoral artery with the femoral artery with the complete occlusion appeared of occupied to occlusion of the artery were noted.

At operation one hour later an embolis t cm long was found and removed from the femoral arter, where the deep femoral artery branches from the main trunk of the complete restoration of the circulation Six months after the operation there was no sign of any local disturbance of the circulation of the leg

Van der Hoeren L A Case of Traumat c Throm bost of the Sup rio Venn Cara with a Favor abl Course (7: i li t um t h r Thr m i c d \ c per: m t g u t g m \ u d t T d k G k 0 4 1 1

It i generally b heved that a d ssecting aneuri m may be caused by an injury to the thoracic wall. In gene al. bein can withstand a ery great and sud den pressur. bett r than arteries. There have been

manifest thrombosis and embolism is that generally practiced Scin Litheless (()

The author reports an unusual case of bone mar row embolism occurring during experimental observation for another condition. The animal 2 rabbit weighing 2 kilo had b en under observation fo

organs were normal. The exami ation restaled also a facture of the lumbar spine with only slight bleed

Il patient was an army officer of years old who suffe ed severe contusions of the head and chest

wall and was rend red unconscious for some time in

Even in doubtful cs san attempt hould be made to rem we the thrombus by exposi g the antenor mediastinum I och (2)

BLOOD TRANSFESION

Steinen R E. The Therapeutic Value of Blood Translution with a Rep et of Sixty Eight Cases of Sepsis 1 n J M Sc 1924 chaw 314

Whole blook is preferable to citrated blood be can e of the frequency of unitesant and even ser ost reactions following the administration of the mod field blood. The syringe cancula method is simple safe and reliable it is the quickest and most flexible method and injures blook as little as

with the to at a

The rocate rogram which excluded areuman slowed a wife uniform band in the mediastirum. Cyano is adema and collateral circulation and

to the on the state need the function of the superior

ten cava

In the differential diagnosis the most important
consistent to be excluded as sphilis. The can be
ruled out by the usual tests. In causes of thrombo
use mediatinates and tuberculo is must be given
the control of the contr

mout at Lon

1

nnearance of the local process. In acute sep 1 1

I which were treated by blood trains is a fire results. In m n) cases of sep is his could be fire results. In m n) cases of sep is his could be received.

** * *

,

casa

SURGICAL TECHNIQUE

OPERATIVE SURGERY AND TECHNIQUE POSTOPFRATIVE TREATMENT

New G B and Figi F A The Use of Full Thick ness Skin Grafts V a sot Mrd 1924 va 714

weeks to two months long. The full thicki es graft therefore saves the patient much time and expense and its use is associated with less chance

but in mo t cases the color is so nearly normal that ultimately it is difficult to distinguish the graft from the surrounding it sue

O heefe ? D The Cause and Prevention of Post operative Gas Pains in 1 05 Gy c 924

tissue should form the bel for the graft. In order

A study of the cause and prevention of Las pains was begun by the author in 1910 and continued through the following three years. The routine used at the beginning of this study was as follows:

Castor oil was given at 4 p m the d y before

to the of the ar a may be measured of the salary a rem in dam ter base been u ed best large a rem in dam ter base been u ed best large best large a remain and remain and remain a rema

during the t st t v f h nn

an of " " " us ng freque that

wall and was rendered unconscious for some time in

Even in doubtful cases an attempt should be made to remove the thrombu by exposing the anter or mediastinum hoca (2)

BLOOD TRANSFUSION

Stet on R. P. The Ti trapeutic Value of Blood Tran fusion with a Report of Sixty Fight Cases of Sepsis Am J W S 29 4 cks 2 534 Whole blood is preferable to citrated blood be

At its any we are all liters t at the cone tone we trainsite thrombosis of the superior vera cava or of both innomirate veras. The development of the thrombo is was favore; by the come after the latt and by the cardiac weakness lonering of the blood gressure and slowing of the blood stream associated.

with the ollapse

The roentgenorum which excluded ancuram
showed a wide uniform band in the mediastmum
C anosis a I ma and collateral carculation indi

cated compression
In another case of thromt o is of the superior vena
cava the author found at autopsy an organized

any procedure

Prensful on is indicated in homorrhage primary and secondary anamia a ute not chronic sepais toxemia from infection 13th dice posoning and

vena cava

pregnancy and the puerpe um respond well t trar (us on In permenous anima no other thera peutic measure has the eff acts of the tran luss of of unmodified blood. Translu ion should be done when wer the hamoplobin reaches 33 to 40 fer tem or whenever di trea ng a imptoma arise

t terne nuri

steme and the chinical tolid hot as P M D

cas a

SURGICAL TECHNIQUE

h fe was

res ure

OPERATIVE SURGERY AND TECHNIQUE
POSTOPERATIVE TREATMENT

New G B and Figi F A The Use of Full Thick, no 5 Skin Grafts if no of il d 924 1 714 New and Figi report having u ed full the Luess we ks to two months long. The full thickness graft therefore sales the patient much time and expense and its use is associated with less chance of infection as the operation is done in one stage.

nd i the like at wan more afts

preventing them from drawing up on themselves

but in mo t cas s the color is so nearly normal that ultimately it is difficult to distinguish the graft from the surrounding it su

O Keefe C D The Pause and I revention of Post operative Gas Palms int J Ob t 5 Gym 1924

tusue hould form the bed for the graft in order

A study of the cause and prevention of gis pains as begun by the author in 1910 and con tinued through the following three years. The routine u cd at the beginning of this study was as follows:

Castor oil was given at 4 p m the day before

shift interested in the that of its late that if e of of skin from other parts of the borst. A pattern of the area to b grafted may be made with rubber to see or the ar may be measured. Graft as large as 7,5 m in diamet chave been used but

one larg one specially on the neck. The graft is utu i n [i ce accurately with de mal settlers at is not perforated be erailily is if gate abost 5 cm in thickness, in 12 hithle 1 ger the n

goo c em ca h ol glucose 3 per cent an l soda bacaboaste 3 per cent was given every frus hours during the first day after the operation and every for the control of the co

the proctocies beyond the forty eight hour per od Under the routine gas pa hs were prevalent and their treatment was almost a daily problem. As

As a rule the p ti at is n the hospital frabout ten fas o two weeks wh reas if a ped led flap i u ed the ho pital zation per od i usu lly from sig ı

hours later

an empirical discovery of fractical importance In the course of the last eight months at the Ma a efusetts General Ho p tal intravenous injections of glacose have been given ir ely without a single reaction. The method of preparing the solution employed is described in detail. CARL C RO PISHER M D

ANTISEPTIC SURGERY TREATMENT OF WOUNDS AND INFECTIONS

The Impo tance of Testing th Lehmann W Virulence of Bacteria in the Blood in the

The Ruge Philipps virulence to t with the pa

co clusions

- h t che

harmful DT 5 85

The a setobic bacteria streptococc staphylo

by frobromid and no tanasii be a 5 Peristaltic action should be stimulated imm hately after operation. The method of choice is

nd bactions e 1 to c increased The trept meeus hamolyticus was not killed in any cas

gas Pains

as mhy 1 to

nal tract

LET AND & P

stood rd 3 L. The Avoldance of Intr venous Chicose Rea tions B 1 1 11 -5 1 94 x

Undestrabl reactions foll ng the intr nous injection of gluc se solutions are not unit uni Williams and Swett found that glucose rapith becomes acid in the ut clave or when t is allow i to stand for several nours at room & morat.

Whatever the expl nation of the loxicity of un buffered gluco e from an acid base Stodes & be heres the buffer g of glu ose with pho phate is

blood was noted. Clinically even those cas of ib rhon term a ted favorably in whi I the visi len e te ts in heated an unfa probl p ogno s In eighte a ases th fin ing of the trulenc tests and the out ome of the condition lid at agree I becall in the ombophieble c p is and s pile and a firs the our was und the whether the bicteria were kider in th t t r t Ther fore the p goo is an ot b I t remned from th t six alone th I cat on of th process 1 alo or im

portance The author d s that buct is an multiply in the irculating blood (a true streptococ us septi

camia) He believes that in cases in which the is suggested the bacteria are added to the blood con tinuously or intermittently

ANESTHESIA

Meeker W R and Scholl A J Sacral Nerve Block Anæsthe la 4n: S rg 1914 lxxx 739 This d tailed and compreh naive article covers

the entire field of sacral and thesis from the anatomy of the sacrum to the stati tical re ults of a considerable scries of administrations. The anatomy

success for sciatica and pruritis and even for enursus and meonintence. In childburth its effect on the labor pains and especially on the resistance of the perincum made delivery comparatively pain less ard decreased the incidence of perincal tears Forceps were used successfully at all levels

The usefulness of the method in pelvic surgery including operations on the prostate and bladder rectum and anus vagina uterus and perincum is estimated on the bals of more than 1600 cases in which the method was used.

. .

low figure
The advantages and disadvantages of sacral nervo
block anasthesia are discussed and statistics are
given for its compari on with other types of an
asthesia

On the whole the method has much to commend it and the author believe that it has only to be

and the duration de ired

The anasthetic was used therapeutically following the original intention of Cathelin with varying

admini trater

PHYSICOCHEMICAI METHODS IN SURGLRY

ROENTGENOLOGY

Faill C A Bel I Analysis of Some Important Factors in the Biological Action of Radiation im J Roesig at 1924 2 1 4 2

h w they might be obvirted the call all cours

of the machine of w is a ceptibility rate as discussed at some length and su ceptibility rate as discussed at some length and with a first and animal

the ch et auminuty (n et saintiles a skin erythems no definition has Leen ndividual rent skin son along time con

on along
time con
of filt is
us d s

1

represent the mi imum and m simum thickness es

m he padiustes as us 183 real real real real

n hetaat yuulko

this may best it u. The s cond problem discussed in the factors

(DOLP!

Holtelder II Roentgenotherapy of M lignant Tuenact (D. Roentgenbeb ii n de m lignen t schwalte) Zi hr f cerell f rib id to 4 x

to time (5) the pring of the tradition (6) the time of exposure and (7) if quartily of the tadia tion absorbed

tomor sternicated, a to retrict the rays a

Th m that

Carcinoma of the thyroid reacts extraordinar ly well to irradiation. Surgical treatment should therefore be limited to biopsy. Carcinoma of the upper law allo reacts very

great importance
According to the view of Opitz Theilhaber and
others the \times rays have a marked immunizing
power If this is correct the important factor is
not the technique of the irradiation but rather that
irradiation is done. The technique of roentgenother

work for twelve months
In the remaining cases of malignant tumors the

unusurency success in the DSUME against Carcomma will never be obtained with the \(^1\) rays alone
periode every operable care norm abould no
perated upon as not and as rapidly as not be
on the other hand in cares in winding alone be
on the other hand in cares in winding and the size
of the other hand in cares in winding on the other
of the other hand in cares in which cannot offer
a comedy at lea I equally potent. At the Schumides
(In the result of recentpenderapy have con
stantly improve diducing recent years. In the subuequest study of the results only, such cases were deal
as were definitely proved to be ca cinoma by micro
scool investigation.

The author reports the results obtained by roent genotherapy at the Ferthes and Schmi den chines. In carcinoma of the Ip the X-ray gave a cure in 70 per cent of the cases and operation a cure in 80

per cent

the third stag were poor but 1 cases treated by irradiation freedom fron recur ence for period of three scars was obtained 1 is per ce t As v t no defin te principles can be advanced f th reenteen

At y Not a single case of carcinoma of the rectum could be definitely cured by conservative measur. Three years of freedom from recurrence as obtained in 27.5 per ent of the cases with the combined procedure of preliminary irradiation. Operation and secondary irradiation.

In carci -

and rad u Ca rin

roentgeno verv readus

Carcinoma of the exophagus is inoperable. There for roentgenotherapy is indicated to prolong life.

r be

ALBERT (Z)

the

Foraseil G Experiences in the Permanency of Radiological Cure in Concer im J Ro (

For sell does h work at Radiumhemmet in stockholm Sacoden This biospital was founded in 1970 If receives government support and the government possible the selling expenses of poor patients to and from the hospital. The latter fact makes possible a well organized department for the following up of cases. As a background for his study Forse lib has had fourteen pears of experience at Radiumhemmet ample material and govern ment and in ecuting examinations over long print is

Ca cet of the skin the lip and the uterine cervix are discussed in detail Radium was u d in practically all cases

With regard to cancers of the skin and lip it has been generally behaved that the hi tological type in the light has a limit of the light has a
po it str

ch

fict t i stilleted to the skin and subcutaneous tissues or infiltrating ie invadi g the sub are f

Pfat-t ~ n

obtained in 78 per cent Of forty cases of superficial cancer of the lower hip treated prior to 1917 a permanent cure was obtained in thirty six (50 per cent) but in only nine of

> In attempt was then made to d stroy the disease loc lly by electrocoagulat on Areas thus treated healed slowly after a paration of the slough but

per cent of recurrences of cutaneous g ouths and 13 per cent of cancers of the 1p bave remained cured In cases of the latter type th percentage is kept low because of the early appearance of glandu lar metastases

Between 1914 and 1921 505 careinoma of the uterine cervix were treated. In the first five years from 88 to 97 per cent and in the last three years from 64 to 6 per cent were monerable or borderline cases

Of the nationts with operable and borderline carcinomata 40 5 per cent have ben smptom free for five years. Of those with mor crable carei nomata 16 6 per cent have been symptom free lor five years Of the remai der with inoperable growths who have not been permanently cured I om so to as per cent have remained symptom lice for at least three years

ough postop rative roenty n ray t eatment in car cinoma of the b east even when early metastases have formed and shows all o the importance of combining all it cful agencies in the tre tment of mal grant divease ADOL II HARTENO M D

MISCELLANEOUS

lielioti erapy in Tubercul is with Rollier A

This edition of Rollier's work on hel therapy in tuberculo s is much larger th n the fir t and is en ricked by the experiences of the war and the post s ar period

- 5 The final as well as the primary cure depends
- mainly on the technique us d 6 Radiotherapy gives the no mal mechanism of cure a chance to overcome the disease by weakening the tumor
 - 7 In operable cases rad otherapy can be con

tuberculous peritonitis heliotherapy must be applied very slowly or indirectly by the urad ation of a distant and unaffected portion of the body. In certain p gmentary conditions its application requires great care in order to avoid burning crythema and vesicle

formation
Surgical tuberculosis is a general systemic chisease
which requires systemic treatment. Therefore in
Lessin practically all local surgical methods of

heliotherapy in the after treatment is recommended as extr mely beneficial In all ca es of surgical tuberculosis use is made of orthopedic aids to the widees possible extrat but the plaster of Paris bandge is troscribed as a total

vents the transpuration of the skin area covered and peents heloidreapy. Especially in Alphoss Potts disease tuberculosi of the extremites and similar cond tions proper posture as of great importance. Aumerous cases of tuberculous polyarith its with purified it fuile are cured by heloidreapy with purified it fuile are cured by heloidreapy to the state of the proper curinely destroyed resume shown by the rotting and the property of the propert

failure as it increases atrophy of the muscles pre

There appears to be a definite antagonism between pulmonary tuberculosis and that of the skeletal system. It is only rarely that serious pulmonary conditions are found associated with severe surgical tuberculosis. The less serious pulmonary complica tuberculosis unterfere with heliotherapy of tubercu.

and regulated as in Leysin by the physician Con trivances at the bed ide permit profitable employ ment (nearing typewriting the manufacture of

tons etc) while healing is progressing.

Govering the period of the report the following conditions in add tion to tuberculos: were treated by helotherapy wound infections avanous elicirs letter ulers burns philegmons osteomyelitis war injuries and gynecological dermatological and harmatological of seases. In articular and other suberculous conditions the romities may was used as an adjunct and gave good results. If never in a particular and gave good results.

6 (4)

MISCELLANEOUS

CLINICAL ENTITIES-GENERAL PHYSIO LOGICAL CONDITIONS

Fi her D and Snell M The Treatment of Shock with Glucose Infusions and Insulin J 1m M 1 1 1 1024 1x1 1 0 6

In three cases gluco e g c ssation gical sho

The m ing place tribute i solanebni

of toxins p ctures se

at e organs of the body e pecially involved are the thyroid suprarenals brain liver and muscles These constitute feura tively speaking the kinet c system which contains potential energy delivered as the result of environ mental stimuli

In shock as in nearly all abnormal conditions there is a state of perserted body metabolism and the body cells cannot metabolize introduced c r

bohydrate as quickly or as

1 ì

administration

the end of the glucose MCRRIS II KARS MD

Von Berencay G and Von Wolff K Tie Distri bution of Carcinoma as Indicated by 19 903 Automales at St St phen a Hospital in Buda pest (U b r de \e b e tung d (a n ms a t Grud n 9 908 Seki en d Sr St phan p tal in B dape t) Zl h f h bf / 1 1924 x 09

Carcinoma was found in 2 315 (11 62 per cent) of 19 908 autopsies If the cases of death courting before the twentieth year of age are deducted the incidence was 13 19 per cent. Of all of the cance deaths 43 64 per cent were those of males and 56 36 per cent those of females

The most numerous cancers were cancers of the stomach in the male the incidence of 1 hich was 48 96 per cent These were followed by carcinoma of the uterus with an neidence of 34 85 per cent

and cane r of the stomach in the female with an incidence of to 4 per cent

Cancer of the stomach in both sexes and cancer of the uterus accounted for half of the entire cancer mortality These were followed in frequency by carcinoma of the gall bladder ersophagus ovary

an I breast Most of the cancers at peared between the fiftieth and sixtieth years of ge Up to the si tieth year of life females are affected mor fr quently than mil s

was a post the stomach a ased but cancer of the uterus has incr ased GR PY (G)

hai e J II The Hered tary Occurrence f Can cr Forms (Lum e bl h n i rk mm k i i me) D i k m d ii k k 000

The genealogy of a cancer family revealed the following facts t man the did of a bladder condition and a woman wh died of dropsy had five thirly n Four of the ch laren died of cancer (one of cancer of the

larynx one of cancer of th t anf ē th de ga

cer tave diseases of the can gall madder and t o a chrome ga the trouble Of

the (e children of another daughter wh died of cancer of the stomach one has chronic ga tre trooble and one ha a cance of the stomach CRAF (G)

Lampr cht J The Eff ct o

This report is based upon twelve cases of skin cancer which were either mope abl or in which operats n as refused. The treatment consisted in the injection of the decompositi n pr d ct de rived from carcinoma by Joannovice At first from

501 Of

Ot

Illmann H J The Management o the Inoper able Cancer Patient Rad closy 1924 111 407

reaction

In three cases there was complete disappearance of the tumor but this was transitory. In five the results after an initial rapid improvement were un satisfactory In three cases there was improvement followed by absolutely retractory behavior of the

٠...

tumor

The best results were obtained with the frac

drinking

s can be

demands further investigation along these lines GRAPE (G)

reatic ex tract in doses much larger than those usually given CHARLES H HEACOCK M D

BIBLIOGRAPHY of CURRENT LITERATURE

NOTE—THE BOLD FACE FIGURES IN BRACKETS AT THE RIGHT OF A REFERENCE INDICATE THE PAG OF THIS ISSUE ON WHICH AN ABSTRACT OF THE ARTICLE REF RRED TO MAY BE FOUND

SURGERY OF THE HEAD AND NECK

licad

Some di se l'the eye which r l' nt st t ery
phy c TL BATLEY Kentucky M J 0 4 xui 475
Prati al f ct co cring y sa d g n r l practice
B S Geyrro \ O lean M & 5 J 0 4 lr 150

OZILO GÉRIUA I INE

Accommend — a d (t of d el por nt. B \ Mc CLA AIAN III is M I to 4 x i 1 355 Acontwed wo nd i the sag cital rep n and fract rethe left pain tal \ Fronton Tato Siglo med 924 lexi 497

462
Rem 1 of Ste n s duct from the right antrum by pl site m thods not sits mech nical counterp it J ESIRERIAN J Med Soc N J is y toja x 36
Th norsing rev in the d good s it is m r of the ju
G B NEW and F N for J M m M As 944 tx i

The prosthet rest ration of a port. I the mand ble incl dag th t mporom d but articulation on o e a de Y Mirrory to My 12 mg 9 4 X 12 4 Se ereinfectio I dint lings T Myrainble J de to 9 4 X 2 6 1 ary 1 th 1985 A Paranco Bresil med 9 4 X 12 1 99

Ey

Diers of m for hiles and ther selfs and he rang GI Curry Atl te M J 924 3x33 59 Conservation of self in the hiden R R Section J Iow State M So 94 xt 49

aon Essex as 50 y 4 x 1 49 The trip it in ease of the ey 3 + 11 Ess x (b). St 1 M J 30 4 xx 691 The trip it in ed of the ey 3 + 11 Ess x (b). St 1 M J 30 4 xx 691 The Discus on o th microscopy I fol i g y e B GRAYES T H RETLEX C II GOLDEN od other a Brit M J 9 4 1 750

Mid & Surg 924 12 4; f mt gm M

EAN and

254

The ch cls nificance for tigo D F S Wishfart the CH C is nibrance fv tigo D F S Wisitarr Can d M Ass J 924 v 062 I nose a d th t complications f scarlet fever

UY_ 54.1

-

! Lar. gol & Otol 10 1 XX 17 605

5

VE

Nose and Sinuses The t nof ddl noses E DITNER M d Kl (194) 924 7 900 A mp attestudy from dognotrasplants in

R Cmm cat g selbtw thert i hostod J l'Ira nos Am J Ophth 943 vs 868 nts with jeer l bactllus btils inf t ns] S CLARK Illin s M] 924 1 330 D J

L 1 Cv

Rhalg I observation the in lint ry ners steem G DLUDER J Am M \ 104 1 487

Local Steem R on S V Mact Y Bit VI 104 106

Ac se of anam Ip rasites (m ggots) the nose J C SCAL Am J Surg 9 4 TT-11 SCAL Am J Surg 94 vevi 76
Some on 8 1 2 fs lledn 1 t rrh II H
Ant Cn mn tij M 924 467
D uss non sopharyng let th Sa W Mital
on S Scott II Titte an 1 th rs Poc Roy Soc
Med 1 o d 94 u Sect Laryng 1& Utol 5 [194] 5 om I the o th the port i se ten 13 ft pration G A Moore B st n M & 5 J g24 6000 Smeasp tof laccessoy in dee JKM Dickee Chadn M As J 94 67 C se no

Eng

11 11 La t y au Sten d 94 xy Sect Laving 1 & Ot 1

Test gmlgng fd fes D Macrasta Atl tt M I 94 8 Dbt dgn affettin I th se throat W 5 Stu B t M I 04 oon

Mouth

III start g the diff of dieme of their on the lay I II Stone Ned CL N. Nam eye in on the lay I II Stone Ned CL N. Nam eye in George B 1 W J 9 4 0 5 1 1 1 to J 1 to

94 35
Sing call tim i f d stim II Piece n De tsche
We atsch f Zahnhell o 4 1 64
Socall d ug calit catin i 1 p3 heea 1 colin W C S FARE I term t J O thod t Oral S g & Rad ography 94 x 3

.

lei 383

and softh thyroid S M NEUSCHLESZ Klin. Whishr 19 4 ls 1013 Goste p vents n as appl d to Washin ton E. S

24
The treatm at of neoplast c d c set of the ral cavity with hi tol gical data W. L. CLARK Dent 1 Cosmos 10 4 Iv. 1727

Operate e treatment of I spung E Froescherts D ut sche med V thu ctr 924 I 375 bmall uters of the to gue V P Bertwister Can d an

M Ass J, 1924 x v z 1 t
Detm id cyst of the to gu \ \ Mosencourtz Ann

cm at 1 M 19 4 472

Ind esults in some co d t n stockated with 0 possibly c used by g ster. M B Ti. Ex. Ann 5 g 19 4

Pharvas

Via ents angins or tre ch mouth G O Doave J lows Stat M Soc tout in Str. Vi e nts I sease and parasyphilis with the pott of a staticase F F Gypparux Callfornia West Med tout

The general practitio er a d the tous is J K. Love Glascow M J to 4 n x 3 4

The 197 al te atme t of e ophthalm go te G

1914 xxx1 770

The rel ton of prolonged consulation tim to histor than from tons licetomy J H Harry Northwest Med 914 xx 5 5

A case of peritonsillar abscess secondary to polyneus its inested by ex th rapy A Xx urr Pol clin Rom

Nork

2924 XXX Sex Prat 1466

Basal met bol sm F Sopera Boncompre P og de la cl M dnd 922 xx 1 433 ta mplef d method of estuma ng the basal m tabol m by the respiratory method A C Guillacum Fress

Endocannol gr 624 u 777
Ac t parathyro dius and is clinical signific are. H

Divergence B it x kin Ch? 19 4 exc. 1 5 1 [195]
Are ew of thy reglessal d et n male - the ep et

Of them for bidonembranous laryngits R McKin by a yogoscope ods xxx 836
Tuber is a fine laryn. Its s gnification by an Xin St C Thousan Land togal crussia.

But M J 1934 1 84 Experience of the fuberculo slarynging in children C D S Agassiz J L ryng I & Otol 1924 xxx 6 8 [19]

Tumor f the e rot d body D Gutu te J Laryngol & Otol 9 4 xx x 555 Prothel ma of it c tid gla d C E FARR Ann S rg 94 lx 89

toy

SURGLRY OF THE NLRIOUS SYSTEM

Brain and Its Coverings Grantal Nerves

Arute in ; es of the bra n G A Handon Kenducks 1 for a 1 got at 1 got 1 N Dincon has has had been bread by the total bread had been been been been been been been bee	157 700 If singerst we chemoth rapy of gen at 44 supportant we men gitts of sixte o spin Vistory's Brutel's intelligence and 1524 v 8t gla M Byrnb
	s sieme Jr. At
	I PARRER]
Til 558 Nilson's postenceph liss c_n'nbut n to the study of metal	E FERNITEE MAX SIGNO BG 324 6 44 6 7 6 7 e 1 e unel an G M
921. The visual 6 ids in pituit ry disease—a 25 epo t show not be self-acceed processed as power 10. Decoration 10. 11 to 10.	Spinal Cord and Its Coverings Acute polt myd'ts K Winstow Vorthwe t Vied 18 4 222 fg. Ac Deflows J Ind na Mai W As a x x 3 gs. The treatment of the coving ento united as the paradol seat pol myd't A ADPFSON Vorthwell Sied 1904 2211 g. Deep rad other ps. as the ga ince wes of tab W M A beason of the St. ni sail it rd sat a sem natio of the add L A Back of H Texako Sem as med 1904 2221 A beason of the St. ni sail it rd sat a sem natio of the add L A Back of H A Texako Sem as med 1904 2221 A Peripheral Nerves Peripheral Nerves C tot 1 teral ut a sphalts of the St. O Wiss. Us a Back of woodely ad this ps St. O Grass Us a Back of woodely ad this ps St. O Grass Us a Back of woodely ad this ps St. O Grass Us a Back of woodely ad this ps 193
E. docentral ephaten F Opazo Roll for de arag de Chie 323 1 3 6 The accephatose pe J to Rua v 7 atrail 1 Ch r 1933 1 235	10 a kins 343 c. 13 45 Expense is a shiftle sere light of II I operation in on that it is the core is a shiftle sere light of the core is the core in the core is the core in the core in the core is the core in the core is the core in the core is the core in

i

ances of the thyro d S M Neuscalesz Kha Wcha chr 1024 11 0 3 Coter pre nio sappl d to Wahn ton ES

The treatment of neopl stic ds ssof the oral cauty with histol gical d ta W L CLARK D tal Cosmos

M V3 J 944 rt. 10 Demo d yst of the to gue A V Moscinco vitz Ann. 1rc. 331. Foll results of go fee persu ns. 4. J Oct 5 ex. 4nn. A report fithe r ults fope ton on g p frs cases ig ter C \ Down \text{ Inn S r 0 4 lixx 30 and II E

Pharynx Vincent's angina r tr nch mouth G O Doane I I wa Stat M Soc to 1 xi st Vincents d se ean ip rasphils in the report of a fatalease F F Grontus Callorn & West. Med 19 4 th the report of a X 545

lx : 6 a The s rescal tre tm nt f phthalmic n ter G

The t I tion of p clonged coscul to a tim t harm t than t than to illectomy I if HARTER Northw st Med 1914 RX 1 516

A case of peritonsillar abscess secondary t polyn untus treated by serotherapy A LENUTE Lolichin Rome 924 xxxi sex prat. 1460

Nock

B sal metabol sm I Sorasa Bo countr P g d la In M dnd to 1 Ex

0 4 lxxx 660 Chron per d'n mbre us l'origites R McKin Et There is I the larynx Its a gn ficance to the ph) s in Six Sr C Thouses Lincet 1914 c 943

Brit VI J 924 1 841

A erea I cases I t ben ul s l rynght childre
C D S Acussiz J Laryng I & Ot I 9 4 xxxxx 518 (195)

[196] 924 1196

STYPE.

CEXXI 531 Tum r fine c not d b dy D Gornans J Laryng I & Ot 1 9 4 xxxiv 635 P thei m ith curtidgi d C L FARR to. Su g 10 4 las 789

.

cabbits D MARINE O T MANLEY and E J BALMAN

Diffus mal grant cers comedizatinal pomatos Mau CLAIRE Bull t mem Soc an t de P r 1924 xc v 48)

Miscellaneous

Thymus case H P Mosner Laryago cope 924
1 80
The and enc of thyroidect new g nadectomy up and plen clomy on the thym s gland of

pai in Joe g say estig tons of apical chest tumors H K PavcoAst J Am M Ass 1924 ltxs 1407

Re c t prog ess in thoracic surgery C 4 Herpstom Western M J o 4 xxiii 278

SURGERY OF THE ABDOMEN

Abdominal Wall and Peritoneum

A plast oper to fr umb lical herniz L Kracii MAY Ze talbl l Ch 924 h 403 Th teaim tof gu al hern a nfant and young children L F Warson V rgini M Wonth 1924 h 100

For ther aw that agul tion f the oment may the utacute sympt ms. J. Parendes. B. I. Soc de cirug d. Ch. 1, 9, 4, 3, 343.

S room of the g at omentum P Morgotto B II et mem boc anat d Pa 9 4 x 443

O Cicvoz i Re de h Pr 9 4 1 659
Il t logy and ymptoms I intrapent eal postopera

År Gr

549

cu 4/5 Ultrav 1 t r y therapy 1 perio e land el 4 1 r

]

Pri pls fitrapenio cal dra g F H Lames. Bost M & S] 9.4 06 Pseul myxom perit i E Ries S & C) cc & Obst 924 xxxxx50

Gastro-Intestinal Tract

S but so a such some of casting tribel in of congenital origin F Rassors and A littlest 120 lill it them 80 int of Par 9 a rot 40 str. 10 lill it them 80 int of Par 9 a rot 40 str. 10 lill it the strength of the strength o

Functional stamach diso ders J C Howarr Hah e man Mo th 1924 h 647 Fun tional g trc achylia C Bonorino Unando An F c de medi Unity M nevideo 9 4 18 700

Clinical and p th 1 (1 4

The pylo ayadrom in a nurily 14 V 833

The pylo ayadrom in a nurily 1th hypertrophy
of the pylorus V Gristi Land A Antonella Semana

FIF Is N by to b. to proof I a miles

ce follow - to the heat disgration of n

rtion of the H Buter

I 104 x

378 P martenal sympathectomy O Urrennezza Riforma r narretus sympators.

med 1914 it of
The path 1 gr al cond ti n pre nt and the surm al
tr tm nt of a gina pecto Dakielopoli, Brit M J

Ad seu on of the surge alt eatm nt of a g n pectors Sir J Mackenzie Ther; C z 1924 3 s xl 76
Th sensory n re fibe s of the he t nd a ria

Misc Hancous

My its sa mpli tonolmen les E Berge Eldr Acta med Sc nd 1934 l 181 Th dagn stc le and interpetation ferebro-spiald term nations T Fay A n Surg 9 4 lxxx 64 5 bose pt I punct re & HIRTWICK Z ntralbi I n Med 924 1 466

SURGERY OF THE CHEST

Chest Wall and B cast

46 11

The urgical treatm nt f pulm is tubercules a on

fing t n with unreal sol to n f blonn ted sods in emps ma F A STEENS J Am M has pay lives En foth I oma of the ple m H L ROBERTSO J

Trachea Lungs and Pieura

Hea t and Perica dium

Cne R se rch ots # 3 ?

The octgon d gn s s of the heart and thym if n y E vo r F t h a d Geb d Roent n trhi 12011 of x 75 If a dbook types to th logic la at m nd bist 1 gy I II Hat and blood es is I HE RE and O L marson Brin pringer 0 4
Th a re alt atme t fin traist h s

pe nd

52

h hm hi C

1

The bologic I diag o of hyd tid ex t of the lug J

Esophagus and M dia tl 1um

Rem "lofforegabod fth or phagu through the pined st mah \ H. CKER Ze triblif Ch 9 4 l Asymmetry f the mo th of the or phagus and etco plaryn al I rue I II P Mostrez Laryn oscope

924 XX 1 854 D esticut f th resoph gus A Caterr P 1 f Rome as axi se ch 449

ጕ

1 1 1 ı 539 1

Ac ad at on it testinal t zemia with esp ci leef er e to the e of e lo c irrigat R S BOLES 1914 ECU 72

KIGER and oth is Po Roy Soc VI d Lond xvu Sect Surg 81 1207 Shall the sphinct be sacrificed in every c se f carci n ma of the rectum? H AUETINER Zentrathi I Ch r 924 1 1119 Rect I surgery abroad J F MONTAGUE Med J & Rec 1924 CEX 400 The h story and p esent at tus of the non au g cal treat

ment of bemo boids W A FANSLER Minnesota Med 924 VI 7 0

. rug del r 924 x-1 5 5 Acute t raion of the pp d A C MALLACE Brit 9.4 Saa Fal app detis M BATTAGLIA An it I d bir 1934 95
A ute ppe die u 1 a ch'ld e mmen g with d r
shoe and e vul s B Myers Brit M I o 4

The diagnoss of ppendic is A L Sonest J Am E KOENIG

> Bot Sec at B Il et M Brend

ALL OUS Why shuld throm append dus be operated po? J. L. Faure Persemed Ps. 924 xxxii 9 3. Som c. sd rat n in the treatme t of ppe die tis. W. B. Sparryan J. So th. Carolina M. A. s. 9 4. xx

76 Tumor ltb appe dax EN Perrigaro J Am In t

Liver Gall Bladder Pancreas and Spleen

Stud s on the total ble VII C nd t ons infl encing the cale me tent of the b! D R DRCRY I Exp r Med 1924 1 797

H pate ole adprot in book G PARTURIER Press med Pr 9 4 xxxxx 849 The ngural form of hep tic colc C Lian R J Weissen CH and G Parturier Presse med Par

9 4 3331 945 olt trachlorphth le a in the stud of l's r funct on

Am J \I [208] salem in the

Int Md

ut ti e phenoltetrachlorohth lein t st s an d at the premotetrachiorpath lein tot our der fler fin to A L LEVEN and R D AU-OY

to ultra fithe agm d ol L P Borr an and P A BARCIA An F c d med Univ Mo te deo g 4 8 5 Impro dimethod of bt nine cultures (in the 1 a sgm dleech C Duxes But M J 10 1 11 906

--- 11 4 5 J 924 CXC1 932 [209] The belocal r h patic che ococcu O Cichozzi Rassegma int max d clin terap 924 v 697

La r bacesa series of surty fou c ses E O Turns 104 lact 914 cc 21 1008 (2091 0 4

h- -

Vergressath textm toful rofthe tmch LCuxx 132 Pressended Pr 944 tm 96 The treatment fout sites dd 9 | 1 pe 10

t as H ENGELSING D tiche Zt hr f Chr

ns un. 617
Loud testan lob truct ca sed by das umu
lt a loud orm EC LLES Ent M J 9.4

co
Th pseudo-ulce yndrom ca ra lint tinal
p rast Deer a 4rch d med cirug yesp 121 9.4

Oneh dred p tinsf chro culce dperirtd
ulce I the stom b and d od um N Botaks Re
med b use rom so al i fre and d odenst uter C
Oards (Factar Arch d met may yes) 1 914

1 250
St dies o ut niestinal biru in II Arnite
tra rail ti W C loste and R W HAUSERS Arh
I ti M d o avis 60
I testan l'occlu from tre of the bliary loop
has in cript re of th d ode um hid atoma h. V
Plas Formar An F c d med U v M tend

AVI 199

Rec rem e afte a g tric ulce peratio by the Bill roth I meth d M FRIEDLIANN Zentralbi f Chi 1924 h 144

oral 1 45
Cost of the training
Castine carein m J M afv B I See d circu d

Ext

Ota

T I le urpati n 5 th t m ch fo h g h g care

T I le urpati n 5 th t m ch fo h g care

the 924

n ma A Schtepper D etsche Zische i Cher 924 chest 268 Report of two case i resection of the storn ch. nd r l cal anxish s J S Hossiev Vignii M Mo th 1924 1 507 T tall nd subtotal gastrectom es I r c r c ma C ax RIER d CHARBONNEL J d med de B d au 924 ca 835 dth hoc of The received diagna filter duod wm JM MARSA
MANTHIAN Frog dela lin M drd 59 4 xxx 747
A ell trating the k tit g filted del it oc
bit yy dra g th ough g sit c hyp p it all M
G 100 km J So 19 4 xxx 74
D d l t d by tum in n ch r
chil J HORLEAVM Z traiblif Cyn k 9 4 21
52

The influence of differe t kinds of oil introduced t the

539

ch

1924 XXX 7 0

det hro ic t timal sta s Gallart Mones Prog

Shall the sphin t r be sacrificed in every case of cardima of the rectum? H KUETTVER Zentralbi i Clur 924 l 11 9 Rectal surgery abroad J F MONTAGUE M d J &

Rec. 0 4 CEX 400

The history and p esent st tus of the n n su gical treat ment f harm riboids W. A. FANSLER Minnesots Med 1974, 1 720

Hv

d's

M J 19 4 899
Fal apped its M BATTAGEEA Ann tld be 1924 in 959
Acute pped ts a hild mane cing with disc them as de vul one B Myers Bat M J 1924

The dagnos of ppe detas A. L. Sorrest J. Am. M. A. S., 974 lexem 766

The differe tail diagnos of ppendicus E. Kornig.
Med. Man. 1988.

Med him 1924 2x 6 5
Appe d us in a hermial sac A Receivs Bol Soe
ring de Chil 19 4 i 21
Acute ppe dets in a hermia L Barrier B II et
mém Soe an 1 d 1 924 Cl 493

The d g oss of ch or c ppend tus M B ULE

9 sende P 9 4 xxxx 833

Why shild ch on append dus be operated poor

1 L FAREX P resemble P 9 4 xxii 9

5 m ns deratio 1 the tre time t of ppend ct us

W B SENERAL V J So th Carolina M A.s. 1924 xx

276

77

78

Detults fthe gmid colin LF Bottaro ad PA Bascu An Fcd med Univ M te deo 94 til 85 Impro ed method of biani gcultures from the 1 a sgm dleech C Dorrs But M J 104 806

Liver Gall Bladder Pancreas and Spieen

St des n the total bile VII C nd tons influen ing the calc me c tent of the ble D R Drivey J Exper

Med 1924 al 1997
Anaphylacic hep to at mal sec tion in can to a phylans W. H. MANWARTO J. R. ENZIGHT D. F. PORTER and H. Brig Moy. J. Am. M. A. 5. 924 FEXEL 12081

If paticial and prot in book G Parturier Press
med Pr 9 4 xxxx 849
The angual form of hep the cohe C Lian R I

Weissen CH a d G PARTURIER Presse med Par 19 4 xxm 945 Ph oftetrachlorphth le a in the stud of lyer f not on

Am J VI [208]

lem in the I t Med

The qua titative phenolitetrachlorphth lein t st s n
inde fle f notion A L Levin d R D Across
So th M J 19 4 xvn 83
The fluin to h fe former between a she black

The simun tin ic foring a betances in the bl as a fun to and test it the in H G Mosen. Arch demid carrig y especial of a x 1 400 trans and A

URRAN and A 932 [209] IG OZZI Ras-

E O Tuurs [209]

17161

The indication for the openive tree time to fell thins. W. horrer D utsche mid Welthschr. 194

14.3 Syphils of the her TG Mizer Vd Cln \ Am 1924 vil Vg I terus its peratuel dication V Parent r Clim

quen es \ S I ORIV ILR Call mas Wet Med 19 4 2 13 540

A W Wet Le coderro in the decrease of bith serof the bl p ges G Ciperivi I of his km 924 22 see the 56

2] 75 ...

CENTE 450

I m tres un s 1
9.43 s 1 78
The value in n surgical d at go of the bill retract
as a therapeutic me sure B D V I v V d C D N
Am 19.4 1 V S
In est gations on the fleet of ch I dochot my o the
accretin in Bulle O 5 Four B 1 s kin Chr 9.4

1 6 (413)

MI cellaneous

The peratic cure [see regun h two nd [th b domen E Glass D tech med Whinch 19 4]

The neurotic retable hd m I Freenin Ann

Surg to 4 ltx 60;
The scute bd men Sider de La Rosa Sie o med
0 4 ltx 403 5 9 555
The acute bd m n from th med cal standpoint. 4

Ch lees litt, with acute perf ration C SAESZ Bol

The diagnoss and treatment feefly escs f subaste holecyst us W Bain Pretition 1924 etc. 1359.
Notur seus of the lecystat O Co. on Ann Sig 102 lax 800

Some u gent surg alc ndt n of the abd m H
P Steve s B st n W & S J 924 c ci 965
cal test

ch
19 4 zh 103
4tt c salt for gall st s Sir J Bland-S Tron Rut
M I 1024 it 795

A p eliminary report on the t e timent of tuber ulo s T *** ** e nd't of the abdomen by means I oxyperitoneum a d pneumop nione m E W HAYES J Lancet 924 liv 571 GYNECOLOGY n literus ı ı dose rad um t tment n carci oma I the ut rus G A LELAND JR Am J Roentgenol 442 1024 (217) A w tech ique of Curie the py f can rvix ut F DAELS 2 d P DE BACKER r of the c rvix ut Brit I Radiol so 4 XXL 3 5 [217]
A p otects meth d of applying rad um 1 the rxl
N J WOOLSTON ad R C CRAIN J km M A s 924 A mmary of the clinical esult fter radiation for the certain ut B F Schreiner Am I Exc. on of the cerval for e doc resent S Rottes BE O d G SCHWARTZ S g Gyn c & Obst 19 4 x : 630 Larg uten e pe forat on d g c r trage hysterec t my ec ery R GUEULLETTE Bull et mêm So anat J A traina 924 u 543 ePa 94 ct 498 Ft l Hyste ctomy A FUENTEALBA B ! Soc cirug de Вуми PG my m F C CROSSLE Med I Australia W und of the g a ad d -gravid ut rus at dy o uten e cars I W MUNRO LERR Proc R y Soc Med at dy of 924 11 501 Lo d 9 4 x 1 Sect. Obst & Gynnec 1 3

Hi tologi I t des f variou ul ri 5 D Mc
l'urrage Proc Roy Soc Med Lo d 1924 x 11 Sect

A larg cysic fib om of th uterus P Banzer B ll et mem Soc a t d Par q 4 48

The tre tm t i uterme fib omy mata surgey

d bst. 19 4 1x 575 Roe tg oth rapy in m) m ut n

Med J & Rec 19 4 cax S pp calm

Adnexal and Perluterine Conditions

Obst & Gynge 111

1

LE

c

R H MENER

EUL 494

```
A case of hepat c ab cess fam bic nom & Prons
                                                                                                                                         The I do t as f the per tve treatme t febal
 jus Med Ibera 924 1 0 0
                                                                                                                                     I th asis W Kornte Deutsche med Wehnschr 1924
 24 3
      Syphils of the lyr T G Miller M d Cin X
  Am
             924 VII 865
 Icteru its 1 rat
                                                 Id the V Pucher Cl
                                                                                                                                              c a sesia usible a rab a coessiul tre tment | enil
      A case of congen tal of it rat on of life diets. H Agar
                                                                                                                                    hi dide d e e H M ARMITAGE Th sep Gaz 924
  STRO O P oc R Soc Med Lond 924 | Sect
                                                                                                                                    3 1 3
 Stuly D Lhild
      Obstruct on of the cystic d ct and ts s re I conse
 q cores. A 5 Lo 1 tra Cli ma & Het Md
   024 XXII 540
       Any sulcase for in the I gnos a ff this 1 of
 th bil n ss ges & Ct atent Pol hn Rem 10 4
x 1 8 2 chr 565
Id pathic d l t f th ble possages M Brune
                                                                                                                                                  LUI UM HUN A
 1924 3 $ X1 778
      The value of n n surgocal dra see of the b harv tract
                                                                                                                                                                                                                                                 1213
                                                                                                                                        Ť
                                                                                                                                                                                Miserlianeous
                                                                                                                                  The operation of the best of t
                                                                                                                                       Th acur to o
                                                                                                                                                                              tabl Ld m n L FREEMAN 4
                                                                                                                                  S rg oad frax 60
                                                                                      , s v
 PORINGON DO IN Y W
                                                                                                                                       The acute bd m
                                                                                                                                                                                    SLOCKER DE LA ROSA S lo mid
                                                                U a
                                                                                                            a d W
                                                                                                              Am I
     Cholecysticis Luk L U D out tol & A Chil
 1924 11 2 5
     Cholecyst ti with acute perf r tion C SAENZ Bol
Soc cir g de Ch le 074 t 23t

The roentg nological diagn of cholecy sticd sease with
the sid of the sod um salt of tetrabromphen Inhth lein
L D Congevand V S Cocaseiter Am J Roe tgen !
1924 XII 403
The diagnosi and tre tment of early cases f ubacut cholecystrus W Bain Pr ctitio e 924 cs 1 358
Sature a cure of ch lecystris O Coson An Surg
                                                                                                                                                                                                                                 A ----
10 4 lxxx 800
83
ch
 9 4 11 101
     Attic sait I rgall tones Six J Brave-S Trov Heat.
M J 10 4 12 795
```

١

Protects n of the infant before burth by pen tal c n s ltations If PALCOT R v fanc de gypéc 1 dob t 924 XIX 545 V git vute us C S Morrov C alsan M Ass J 1024 1 1107

Report of child cry ng n ter C M H nisos Oh M J 1924 XX 700 Amniot c mail rmation F Zechneisven Zischr f st t t sl 10 4 x

Th lood cont tof the ler in pegnancy C Dreno Ri tal digi c 1914 i 719

G 19 4 1 18

Ad n my ma of the rect ag I septum assoc ated

T cases I tumor f the breast nd g station A J GUIROY B 1 Soc obst y gr ec de Buenos Aires o 4 The cu f pern c anam a of pregnancy E Bardy

U 1 U 2 The flect of total remo al of th ut sand d a on progres t bercules 1 p g cy J Miscetto Z tralbi f Gyn k 9 4 xl 11 438 Exp nmental ontribut to the 1 dy of the flect of stration a d nitrog e ch nge in tuberculos of preg nancy G Tesauno Arch d ostet g ec 9 4 x1

Chem al chang sis the blood in ases fa ut ham r h on

et d bst 1924 12 52

il pkins Hop Blt 9 4 xxx 36

[220]

XX 434

The quest noftreatm tof the ecl mpuc n i of eclamp-E FSSEN MOELLER Z ntrafbl f Gyna k 1024 zlvs 476 Ch eic sympt ms during pregnancy M L PEREZ and A M Bana B ! Soc obst y gince d Bu nos Arres 1024 III 2

Spont n s ersion P FINDLEY Am J Obst &

The pre ents p of tilbirth G I STRACHAN Lan Spo t neou rupture of the uterus I GOLDSTEIN Med J&R c 94 tx Supp cl 1

Hysterectomy n ere t matisms of the g 16

ute u G Trirro Ras egua t max dicln et ma ere t matisms of the g id 924 + 623 I th fet sin the uterus jured by roentgen of the m th & L F Drizssry Nederl Maandach v G ek 924 x1 39 [22]

Labor and Its Complications

Ut o ginal tampo ade L Voor Zentralbl Gynek 94 tv11 2211 R MESTRE Re med del Obst t cal analge R ario o 4 ki o Transs ral neasth in l bor lan Erps G; écol egi 9 4 xx 454
Tumef t n f th ant n lip of th tenne rvat
obstru i g del ry B Ragisa Cln 1 t 0 4

The b h p esentat S I D MEADY I Am Inst. H merop 924 u 979 lysis H C Cownes Am Oc ip t post n r a case J Obst & Gyn 924 Podal rsion S 11 6 6 L RUNKS J Am

Homorop 924 xvii 999 Potter vers n ersus f rc ps E I Punceil J Am I t Homorop 924 71 988 Vers by intern I m nœuvres P DELMAS Gynec

sa obst The Ajelia of forceps J G SATANNA Rev de

Forcep in tra s erse rrest in the pel no c v ty T Go ZALEZ Semana med. 29 4 XXI 976

INTERNATIONAL ABSTRACT OF SURGERY

Adn utis and d thermy therapy C CORRETA DA COSTA Arch brash d med 94 m 59
The fu ction f the ary R T FRANK Am J

19 4 11 501 Urethroperi cal urinary fistula Carkasco Sgl méd 1923 luxi 404

Miscellaneous

A clin cal tudy of the effect of mamm ry gl nd substance up n ut r e f n t n I H Charleon a d E

LUZATO Pa schr 1024 zv 343 Th skin nd its ppe dages n no sna deem 1 a

d gnosis. F BECHTE RUEDENHOT Wen El Wh he

11 310.

The ant trin situation f d rend cysts of the oary after labor E A Borne B I See b try gire de B cons A est spile 1 370
Cold absresses of the oary Haller Parischir 1974

NVI 323
Points ma file to injected with florith a berlik
J C harmanna B I Soe hat year ce de Bueno A s
19 4 11 220
Transposit on of the o ary with its vascular peed cl to
the uterus after ablatin of the t bes. T Terrare and

Transposit on of the o ary with its vascular ped of 1 to the uterus after ablain i thet bes. Trerere and M Lerutte Gyn c lobst 1924 is 5
On the indation test f rubbal pat cy V Boner Lanct 1924 cvil volt

M J 924 x 604 Operati e establishm nt ritorati n and rigulato I th fu ct on I the I male genital a with particular rirn to tenlty II THARKE Wen med Welms br 194 km 793 1854 905 Unusuel ompi ations ngyn col gy R. T Frank

Col rado Vicd 1924 x 330.
Dathermy: synecology V B Charry J Radal
1924 18

External Genitalia

Anomal es of the labla mr on W ANIALY Dis. rta

~ ^ GELL

BOBAK schr J S

1 11

eì c

1914 4 5

OBSTETRICS

Pregnancy and Its Complications

Physiotherapy in tenal tuberculos s W F MARTIN

s et hr to 4 1 so8

J Urol 924 xt 403 The sec ndary closur of tuber culous nephrectomy sound C 1 Biocoop J Am M

t. L Am I Am

Glandular the rapy the regreat spot area of epine, he ra F P Richards & J Am M As 924 Fraum

Primary re 11th suspeciated with a berculo; fifthe right 1 dec J Salzenas Sem us mel 9 d

2221 £ GG

1547

```
Ass 974 lex in 1573

Inpud speckins f the renal cort —th so-called myelin kid tey F P Weber Pro Roy Soc Med Lond 194 x Sect Urol (r
                                                     with a
                                                      Prop.
                                                      1921
x 1 287
  In weste fpl ce topy of the kds 3 Contro
Jdrlmdtch oz4 xv 4%
                                            J REJSEK J
                                            cro P hel
                                                                 U 14 Jy & Dty D N LISEADRATH Ann burk
                                              B HENLINE
                                                                024 IXXX 712
                                               T SHIER S
                                            3 4 EX 1 4
beman med ogs xxx 81
Traum ti les s ithe kidn ; S I as tal Trb a
                                                                 the 94 xvs 50
                                                                             Bladde Urethra and P nis
   Modern pyelography W S Pian Md Tms
                                                                1 ) store py sher to pe nt evpo u of the pat t
T M Dires want N Muner At J Surg 924
 rozal ai
  A new pyel graphic medium A Ravieri J U of
                                                                XXX 1 68
                                                                   Th fem le bl dder W F STEVENS a JE ARTRUR
 19 4 x 573
                                                                I Am M As 9 4 lata 1 656
                                                      I lm
                                                      MISSET
                                                       D II
                                                     R Sot.
                                                                 "Nescal str.phy and unlater 1 pyones hro I
SC cines Co isa Pr. g. d. l. lin M drid 1924 Oct
                                                       coen.
  tie 941 vi 57
Decuse o pol 5) teds 28 of th kd 38 Se
Herene Str. B Spilsbury G For 18 ad F P
Webur Proc Roy Soc Vid Lod 948 Seet
                                                                   St gulated parape to all derticula eystocle
                                                                 GD 16AT the tidit o 4 1 260

Di t 1 fth bidd G B Lasio Rirma
  Uroi 60
    Lat at calcula f the kidn y K La zil orra J
                                                                 m d q24 1
  d of med etch 19 4 x 7 466

Is doc le 1 s f th superior repail preteral res on
   B MARACT and Astr upt R Assoc med to me
   974 XE 11 3
  I fection is ause frecutre e follo g operat no fo kdn y at n s ( N Roust G A I chrute
  Tuber 1 of the kdney h racter ed by my t le as of by fact al df y nephrecismy secony A Bolekel J d rol med et chr 9 4
                                                                                                          u et fir 19 4
                                                                I tal I man
   $1 48
```

t

The questi n f air and g s embolism d ring labor W koertike Z ntralbl f Gyna k 924 lvi 1657 Some obsevat o of the s gl in in mgilty of th cervix J L ACDEBERT Re is c de gyné et d bt 924 xt 499
Ep otomy fr the pre nuo of pen callaceratt s D DEUTSCHMANN M d J & Rec 024 exx S pp et Rep t d symphys otomy I R PASHAN and P PIETRA ERA Bol S e obst y gin c de liu nos li es

1024 11 246 Placent pan r prol pse of a normally se ted

A comparate st dy of the les s f the l t and k dneys in pu reral e lamp La d fe pe me t lles s produced in the rabbit an essay of the p thog so f eclamp a L Périssies Present d Program

The impo to ce in the d clopm nt of sep a f porti I plac to ret mei ft r full t rm del ry E Gtick D sertat on Fra 11 t 924 (222)
Expectant tre tme t of ut rine sep is A M Jo Es

024 ¥ 402 R utine pel to e am nat on dur g the pu men m

M II Puttares Bat M J qua u 57 Newborn

Ob svat n upo the n wly born L R DEBLYS
T as St te [N org xx 384

- rontmbut n n

J O Boyn C rebral hamorrhage the suborn L P MAC Harris Ca dan M As J 94 at 73 [223] Occult intest nal hamorrhag in the p thoge eys f m len ne trum D vov Raise Zniralbi i

ma Month 9 4 h 665 Che rean se ti n f llo ed by temperary et n me ti n of th uteru L Portes Cynée t let 19 4 x 25 Exterior sti n a d s co day e t grat n f the uterus at casa e n secto JL tubencar R s fe no de gynée t d l t 1024 x 437 Cresarean sect n []] w d by 1 mporars e temorizat n

9.4 34)

19 4 V 628

Puercerium and lts Complications

The antihamolytic unitry de in the perpent m

4 10 4 549 Pyelitis a d'the puerp rium & Con ta na Cosza

R gynec ed bst 94 x 101 369

Miscellaneous

Obst tric a specialty L E Siemon Habn man

Month 19 4 hx 683 B LANK

RE CER

n South Plac tle tract of a gal t gogu C Yi Sri o

Atl stac M J 924 xx u 85 An an tomic 1 study of ane c ph 1 letu with spec 1 reference t th det rm tin of a v G CLEME TE breh de ostet gape 9 4 x1 409

GENITO-URINARY SURGERY

Adrenal kidn y and Ureter

The urp enal yndrome V P NDE Rif rm m d 924 1 090 The paenly drm V CES R PLAZZA P form med 9 4 1 1297
Som the gats do 1 th py 1 C Cu ste

Thunfi nce i the pracensi gl d n the thymu The last need is a practical fit of the olded thomas fillo ng d bl s p r nalet my in the raf II L Jarre J L per Med 924 1 6 9 [225] SEV Am bled 014 XXX 63

SURGERY OF THE BONES JOINTS MUSCLES TENDONS

Conditions of the Bones Joints Muscles Tendons Etc

New experimental studies the effict of m cha al

A 2000

TRAUMANN Arch P 1 1 4 1 630 B HE SIM W BROOK a B M S BIRVINSON A d H E SIM W Arch S S 1914 1 5 4 Mak df m of siphylomy ited en fth bo and jou t G ROSENDERG Arch f kf Chr 9 4 CX 1 700

Eo find gs n hi roma R G Allisov Radillgy 1924 iii 388

l s Rad: I

1944) 377 Radi I zy
S coma of bo n a alysi of fifty es s []
MACGERE JR and J L WeWhortes A ch Surg 19 4

7 545
R

The effect I h ~ --

1 L 1924 XX 4 S

Jont tuberc loss A D Suttil J Am M Ass 19 4 lext 1 569 Who to micet os2 G Holm Act chiru g Sca d

Upo ts micet osa D HOIM Act carring Sca n 1924 Il 415
Muscle t 18 A GOTTHEB Arch S g 1924 L 6 3 C gential bsen of the ul a KLIPPEL PRANÇOIS DATYMELE a d FEIL B II et mém. Soc anat de l'ai

9 4 x 1 46
Anew cof o e tal ab ence f the ul a A FEIL
J ROLAND a d J LOIREAL Bull et mem Soc anat de
Par 9 4 469

The ossification f the peri epiphys f the r d s m tw poit of oss fiction C PEREMANS R

A 10 4 L zz 37
R tract n of the palm ap eu os s complicated by fibr m VAUCLASEE B li et mém Soc snat de Par 9 4 449
B ner gen rato foll ng ch nic supparat e os

Bnergen rate folling chinic supparatie of tithe third philan. P.C. Potter ind M. H. Levive Ann Sug 194 lext 728 C call b A. Beanching Policin Rome 1924 xx chi 506

t 193
Th cente nograph c picture in a rich al canc
August nd Cravanaz J de méd de Bord u 1924

543 tut of my his of the tenth drsal vit bia J R. Maken M. d. Khin 94 x 67 L. mborsac l back che i J. Vr. raliz. Brit M. J 9 a 295 Ob. i supon na at m. 1 rint of th lumbo

So I in A Whitman J Bo e & J at S g 10 4
808
1031
105cm of th socrum with the report f c se and a
worth thereto S F STE ART A ch Sung
94
647

Checith point nold beapalicture of the kitheim I Here Z trablic of 4 lys 1 mart mv of Tedel trgs phomood the hapjust H Arres. M hen med Whasch of

L 776
Ad lec to ra TP Noble An Sug 924
kx 773
Myos is oss as a n the army I llow ng h reeb ck n
prest th theh A B way A ch Sug 94 x 610

Nyon to one at a life airily lower ing a local ext in life at the he he he he he he sug of a fair in t. C. Octiver Med Jack c. 04c. Supp.

Viane from fpatel p) ry f H rift. Deutsch Zisch I Ch. 94 lt. 9

1 An imposs bi tra mat c strict re of the bulbar urethra

A urethral tone of unusu I siz I Chay Lan et off case ic le lu of the pro tat curethra S Israel.

J lurol med teh 924 x 1 475 A cas I han ro dal u ethriti Saint Chr 1 lurol med etch r 1924 xv 1 3 6
The result [ap p]] matos sof the u ethra t ated with glacil a et c cid] SALLERAS Re Asse med

a gent 1924 322 1 47 Prim ry e rc m of the femal u ethra W F Courts B 1 oc decurug d Ch le 1924 or Loc la x th s fo th urethra B Luns J Leol 12 to 527

1 h m s's and p raphinos E Galjoev Wd

diagnostic lue M Liteonie Pesse méd P

Genital Organs

024 X XI 800

4 ب F ctors deer s g th m et l to of p at supo the prostat W l Courrs B l oc d srug d Chile 1974 375 Tubere I ses of the sero al tr et J R Dillow J

Unil 94 to 49 Cn rn g culture f th sprm L Bollange H C ROL

k tucky Undescended testici C A BOONE Ur I & Cut Rev 19 4 XX 111 649 A co ge tal penne I testicl S C o VELAND Ann Seg 04 lv 716 Tors of n nd sc ndelt tele s rport HF Tors of n nd sc ndelt tree DAY Am J Sur 19 4 3211 7 Torsion f sup rnumerary tests LF Coper d 1 DEROCQUE Bull 1 mem Soc a t d Pa g 4 486

Trson f nonectpit G Britzn Pol cln Rome 1924 ser b 50 Mi ed tumors f the te t n nf t A Dr ocote Bull tm(m h at d Tar 94 1 484

t tsl t le [227]

het ro 1 lin

Miscellaneous

Present urol gical in thods as pra-ticed in Europe

Lr

J Med 1s Georgia 10 4 xm 10 Roentg nol meal x m t f the un ry tra t C Greatyr. Ra segna internaz d cl e terap 10 4

The role of certain mecha cal de sin the diagno is I d seas s of th g n to-urmary tra t W E Lower I disease s of the go to common the state of
Obstrate go ococcal; ft at them to there a candicate man A L. Wolfer T U l & C tan. Rev 974 X 651 Mercurochrom in go hora M LAVANDERA J Am

Mi 1 pag ht 58

Adju tt tm nt igo or hor with o specifi prot ini t II E \ Leweden d W Br-c: U l & Cut n Re 924 xx 650 Dusth emy n the tree to of gon reloc.

Som of the co eq nees of pe mably cu ed go r rhora T M Dorsen Urol & Cuta R 1974 xx 1

In xperum t l t dy l th rape t e proced res p p) locystati H F Hz unotz a d F Mulrich Am l D Child 974 x 700 Schi tosoma hem tob um lecti n a d is relation t pera t t unn ry u W S Pour Bost W & S

Un ry 1th s N II CO ENHATER & na Vi Von 10 4 1 48 --- FSIm ATSCH L

> 1 g ô

543 280 Consental d location of the hip G ENGREMANN ł

Bull et mêm Soc t de Par 1024 xc 476

Rato It im no of facture in reg m f th elbow point, S W Booksreit Med J & Rec 10 4 cm 5 pp CXT 1 The teatment f typical fract e of the adjust I HYMER M Colles MARING Spo t 5 lo the drit of the eighth d tenth ribs second ry t pacu monia nd fib i o s pl unt O Cronozzi Ann ital da

Primary suture of ope fra tu of the patell

I G TRISIER and CHASTANG I de chi 1924 XXI 513 I lat d fracture of the L s l scaph d L BAZERY Buil et mem S c at de P4 10 4 xc1 401

SURGERY OF THE BLOOD AND LYMPH SYSTEMS

Blood Yessels

ch 1914 u 911
Aca of fractu e of the pel s C P Ropanelle and II
Apares S m na méd 1914 2mm 100

Medi al tre time t of the card ascula syst m a surg ry A W MEYER Lin Web chr so 4 983

pe ton f mbolism C xi 4 [242] 6 03 8 0 1 0 4 XXXI 4 The prive lecl

Hotz

Thromb ss of th superior ms nteric ve P Mor BOUD B ll t mem Soc t d P 1924 xc 44
A eu m of th p imonary tery Hornaccie Re med del Urugu v 924 x5 326
A aue faorte eurism C B Pastey La c t 19 4 cc u one

A study of 4 000 r port 1 c ses of neuri m of the thorace orta L I Boyo Am. I M Sc 1024 | VII

I

ŧ

fa un mof th sple cat ry DCL An un m f the pper nd f the t b a

REY's B 1 Soc d carug d Chi 941 8) equ ly?

A case it mats thrombos fith pri

Hlood 1 82 Ple AC

> 177 DIMAN

The question of calca us spurs F krescuve treh f thop u tafall Chi 19 4 22 12

Surgery of the Bones Joints Muscles Tendons Etc

w methods in thoped c surgery II. Spring W. en

xxx se prat. 404

A ra & f co tract d tend t cated by the Zander
method. M II HAMEL Jancet 1973 ever 900.

Late I will of the orth pele t ratm t of face d
parallysis. Chickia. Re franco-bel s d chr to 4

XXV 070

XXV 07

Se en cases of arthrop1 sty A ODELBERG Acts of page 1 u 331 [232]

lab 9 4 1 225

Th teatment of ball valgus and radus Sir R
Jones Birt M J 9 4 1 65
Agan th per to forth litux algu A. H Farinese
J am W Ass 1924 L x v 908

[235]

T 1 0

JIS

Expern not look for e Thompsolm of oto cloud to doe. A Schundt Burschn. Ch. 19.4 tt. 19.

Pract Ipoints in the consended estimate of the tres. Il Abiles Mid J & P. C. 924 car. Spp. 1215.

Indicat resent to traind at 1 o teosynths in closed f ctures If Junear Pa hr 9 4 349

The treatment of the empal game of the Neumuellen and Neumuellen for the space of t

The t atment of olors by a method diffe at from

refer to then gas to be form geternois in the blods run. Il A PETERSEN J Bin & J : \$257 (257) & 585 (2

1

ġ

Cong n tal dislocati n of the hip G ENGELMANN
7tschr f orthop Ch 1924 xl 438

t nof the he dof the fem r Ludlory Zischr i orthop Chir 19 4 xlv 51:

SPIZ Presse méd P 1024 VX 800
The treatm i ffactures of th neck i the femur
DEPUYDE PERVICLE Pa 5 Chr 19 4 VX 374
Fr t e fthe sh fi of th fm W C CAMPBELL
ad J S SPERED SUNG GONG & Obt 1024
Print by suite of open fracture of the p tells V

Rational treatment of fact es in region of the elbow joint S W Bookster, Vd d J & R c 19 4 cmx S pp ctx.

The treatment of typ al fact re of the rad us I Waxes Muenchen med Wichnschr 9 4 hrs 577 C ll fra tu with a nusu l etiol y J B B

A liractur of the plas t. P. Rophittz and Il Aprile S mana med 1924 xxx 700 I of t d fracture of the tarsal scaphoid L. BAZERT Bull et mem Soc a t de Pa 1924 xxiv 491

SURGERY OF THE BLOOD AND LYMPH SYSTEMS

ı

,

ŧ

D Grant

Blood Vessels

M deal te time t f the card o ascular system is ugery A. W MEYER Klan W hin ch o 4 in 988 Le ton f the commun tid try E Kosteritz Z talki f Chir 9 4 i rot Blood ""

PC1
I logo
Hoto
I Hotor = R

Я

Ν

TO PHEKT

S Lt S

m oad 94 kr 75
Th plomgicf m ichrocobit rat gith m
bophlebus of th portal L Brun Arch d m d
rug yepeci 1 94 xv 344.

Thromb : I the up mesent reen P Mor nouth Bull temém boc anat de P 19 4 ret 41 Aneureum I thep Im ry riery Hornsteine Re méd d l'Urigur 1924 z 1 3 6 A cas of a te ram C B Paster La et 1924

A cas of a tc rsm C B Paster Lact 1924 ctval 906 A t dy of 4000 epotd cases of aneu 1800 of the thoraccart L J HOYD Am J M Sc 1924 clr 11 654

An rsm of the des nd g thorac cao ta ruptu to the left pl saic vity E FRANÇO S DAINVILLE and J CARAES Bull et mem So at d Pa 94 xc 464 A se of protrud g plat g eut m f th d

Matai s of an moithe spicatry DCL Friendlians BtMJ 94183

FITCHILIAMS B t M J 9 4 1 8 3
th un m of th uppe d of th tba A Prado
Reves B 1 Soc d crug d Chl 924 1 39
ou lv?

Blood

R
P
1
A
C

P 1 e A C III

HI

Crat cal tests of blood gr up nh ritan L H Svider South M & S 1024 Exx 473 The tressus nofpetol d L Joné J dechr 924 exx 522 F rith ritules n blood trans fus a L Carrona

11 8 tt

Blood Transfusion

of factly-eight case of sep is. R. L. Sierso. Am J M Se 1924 clavin 534 [244] Inf. on apparat s W. H. Bayono. J. Am. M. As 1924 [kg. 767]

Lymnh Vessels and Clands

n stev

prat 1465
Focal I fects n (lephantus) R L. Ritores Su g
Gyne & Obst 024 xxxix 6 4

Obst 94 xxx t 6

SURGICAL TECHNIQUE

Operative Surge y and Technique Postoperative Treatment

Fatton in surgery I we'd e morb diy a d mortally C D Brooms J W has State Noc 19 4 7 Theid humber sets on J Herart. Zeetralbif it May 2 1, 10 1,

trees for an e care to be STEARNS NOTE HA STAR 1] 1944 1 The cut is direct ton of postoperative fast pair (C D O KEEF AM J Obst & Gynec 1952 was 748 1248) The de dipment or rift in a dit estimete of pot 1 por et is postum in R Loen Make cha med Websek 1954 into 775 The lit too coursel to pe om n a set the Rechneck

The latico cases of l ba pemnaat the Rochester II more path e II spital BR White Hahn made the 19 4 hr 672

Traumatisms from utom bile ac identa Turvanano B II 1 mem Soc des hiru g d P 10 4 R 1 518

Anzethesla

5 h t

The riechar in of po toperati e ham r hag. A O

Antiseptic Surgery Treatment of Wounds and Infection

Notes on I s ons de to explo e projettes 1 Com pero Picin Rom 1922 text z ch 4 DAY D J. I.
A furth tudy of the ton flect of local a astheus
E VAYER M d Times 1924 in 245

н Α

Wehnschr so 4 1 435 On the alleged syn rg sm of m gnes um sulphate a d morphi e when ject d pn r to the induct on of anae thes by the th r-oil colonic method II BUCKMAN J Lab & Clm Med Q 4 x 189 Para e teb al a asthes OS Lonsley a d W S

Pucs Am Med 1024 XXX 560 W R. MEELER and Sacral nerse black anasth s A J SCHOLL Ann Surg 1914 IXXX 739 [247]
The d ant es of sacral anxisthes a rectal operations L. F. Moon Am I Surg 1024 XXX II 67

PHYSICOCHEMICAL METHODS IN SURGERY

Roentgenology

Rad ol gy (n archu fid 1) D B McGricon J Pos

Theo et 1 st d s f th ff t of ad t n W Cas

PARI Dutsch med Whischr 94 xl 69
The fi eof th ay po the ki F J Tru

The elt e lu f th \ \ \ a us f mms f m lg nt d se F Her. AMAN Johnson Pra tti er

mig mase
19 4 Cm 34 th trates t ip many malena t
R dard in th trates t in many malena t
R dard L Prantra tdant M J 9 4 m
R of C L Prantra tdant M J 9 4 m
Roe tg th rapy f malign t t moss M H Hot
Frince Zisch fa d F tbdd 9 4 xm 9 k
E peri s mith perm ney ind t goal cur m
C G Fo skil Am J Roe tgenol 1924 xm 304
L299

[249]

Atl of body o sets for a mod procete th rapy H HOLFELDER B in Spri ge 0 4

D p x ray the py I A Marty Med H ald 1924

lu 47 Depth pysmplfid C II Visis Radol gy 1924 194

12501 Rad dermat to a d t tr tme t A U Desjannins ad F L Smith N O le as M & S J 1924 lax 177

Radium

I e years of rad in therapy with small dose Hano Gancia A ch de med crug y espec 1 19 4 311_404 The bitbal stm late g dose of rad um W D James South W & S 9 4 Ltd | 487

R down treatm nt with beerviton point cuin n select dicases G C Wilker's Boston VI & S J 19 4 10 4 Rad m t atment f malignancy F M HAGANS Ill of M J 9 4 xl t 336

The acts not rade me the V rays a dultre solt ray pon tr pla tabl s rc ma f th fo l F PENTIMALLI Spenment ! 10 4 lxxvii 710

\Ilscellaneous

Helotherapy Str D HARDIE M d J Austral a 1024

fiel therapy n th tr im t of xtrapulmo n t be cut s \ A MYLL J Rad 1 924 369 Effect fm ssage R PEMSERTON I A C JORI a d C \ Caouter J Am M Ass 9 4 1 1761

MISCELLANEOUS

Clinical Entitle -G neral Phy lological Conditions

The t atm t f sh k w th gl co f ons h D Fisher d M S ELL J Am M A ons a d IO 4 l x 1906 [252]

Traumatic lat ecros \\ B PARSONS JR J Am M A s 1924 lexus 1756 The treatm to the the leg R I C The treatm tol cicatines and kelo ds C Du Bois

The treatment

1924 11, 252

'n

A rad I go at dy of soft tiss e tumors C G Sern R 2AND R d logy 1924 1 4 Ya th m and x tho s M I STENART Best M I 024 11 893 Malgn cy TB kt c I M d 1 Ceorge 1024

11 480 The cause re es Ica cer A Il Wesone M d

The prese e of ne plate bacternam hum; cac m atou growths I literate the H lurie and P Meyer Al Web chr 1924 i 14

The Vrays in the diagnosis of mil ry tub culosis Hi
ARMSTROAG. I oc. Roy Soc Vied. Lo d 94 x in

10 1 (1 00

t

A j St 942 m A test ptoc cus s rum: the frequent the tile along spelas II J LAVENDER Ohi Stat M J 94 x 697
The testment for pell of H. Muente onor
Mu the med Wich schools for less 640

us 2062 Studes I sed on a m lignant t m r fth r bbt VI Student set on an ingrant in first for Vitalian in go the and maken by first plated to more fair flators student gitte ends fresh taton L. Flators flator flators at C. V. VAN ALEA J. Det Ned total 1603.

Studen be and a malement time file sebbt VI. ban to a to granth and maligna co of ta spl ted

A LINCE

H

d recur r te f mal gn ni tumo Cyn l g 4 xl nu 1289 L LED SER Letral ! !

What I'r ges I bring mad in the tre tment of ca B B Data J I w Stat M Sec of 1 494 od et b-210

12531

Ceneral Bact rial Mycotic and Protozcan infections

Focal infe ton C T Mrs v So th M J 19 4 873 Objection of a letter by better L. Limsten J. Medig a Street Soc 9.4 xxx. 46 Gerild dime bifets in the ritter to get dis E. Limst. 1 ss mid Pr 19.4

zvz 88 nthem B Infl za ba ill Infl za ba ill ps will c c g nthem B LEICHTE TRITT & d W ; DER hin i ch sch 1924

00

M Ass 921 laxu 1, 1663 J u

Leh ococru cyst th scapula a ra report of a cas
M Joanning and W A Ring Arch, Su g 1024 t Bayer G qo i th treatm t ffilana s. G C Lon a d W E Cook Lane t 20 4 cert pos C n d ration upon hydat d sease A. Guntaez Arch d med cirug y especial 29 4 x1

Ductle s Glands

1914 n z Cz L 4. D etless glad d e e J P sruz C l rad Med 10 4 xxi 315 Re ogn n t som of the omm n affect o 1 th n locune gland W F B ours he t cky W J 024

doe dem dth

B LEST RICH O

104 27 12521

Surgical Pathology and Di gnosis

Malstangofth Laim W Vo Grad d E. Shuerren Demit Whischt 194 kt 549 (d) g in h m nem) ry s d 44 mm l g C Stropeng Zische f A t. u F t kl gs esch

194 k 168

Int fatton f th tub cul ration by yatn

See er Zisch i Imm tacts i sich vper

Therap 1024 Z YVIII 535



A cliand Ob t trical Fo ceps

Se feelly designed by Ch K II d M D. Gy ee for Ch I way wh pe ul co v i the hi den no the hard my be grasped d tage by ga diest

Instruments of Delicate Precision

Ry-Sherer I trume i ... Equipmen meet many pad not good obt h h m des g not gus fulne



NO instrument can be too well made for the obstetrician. The exacting needs of this specialized type of surgery require precision bal ance and most up to-date design in every instrument.

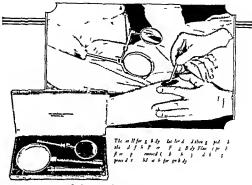
Any Scheerer obstetrical forceps and other instruments fulfill every requirement. Their advantages enable the surgeon to work better and with greater certainty. It is worth while to use instruments bearing the Any Scheerer trade mark a guarantee of quality and fine workmanship

The kny Scheerer Products are obtainable from your nearest Distributor. If he cannot supply your needs please write direct to us

THE KNY SCHEERER CORP

119 Seventh Ave Dp 10





Simplifying the Removal of Small Foreign Bodies

The removal of small metal fragments is remarkably simplified with the aid of the Patterson Foreign Body Fluoro scope

The standard fluoroscopic screen (too large for unre

ment so that the foreign body is easily localized and grasped

The few parts of the Patterson Foreign Body Fluoroscope are readily dismembered for sterilization or assembled for use The instrument is carried in a small neat pocket case

Price including pocket carrying-case \$40

PATTERSON SCREEN COMPANY
DEPT S G O TOWANDA PA



Shadow Detail

After all, it's detail in the shadows that marks the difference between success and failure in radiography

Eastman Duph-Tized \(\lambda\)-Ray I ilms Super-Speed, whether used with or without intensifying screens, can be counted on for the maximum amount of shadow detail These films are wonderfully fast and \(-\)

They're dependably uniform

Eastman Kodak Company

Medical Division

Rochester N Y



It cuts clean does not burn but seals like a cauter;
Much of the bleeding is eliminated
Sterilizes tusue as it is separated
Hounds heal rapidls without sloughing

i d n ad inte e t among the members

he o

tomy Prostatectomy Cancer of the Breast 1001sinections;
For further information write your surgical supply house or any of
the following representatives of the Aeme International \(\cap{Ray}\) Go

ACME INTERNATIONAL X-RAY CO

341 West Chicago Avenue

Manufa tu

Exclusio

Chicago Illinois

onale Apparatus



Keleket Fluorographic Unit

Fluoroscopy Radiography

Inother Keleket contribution to medical science as important to the practitioner as his stethoscope because it assists in laying before he sign stethoscope because it assists in laying before he sign stethoscope because it assists in laying before he sign stethoscope and a sign stethoscope and radio graphic appliances

Keleket Fluorographic Unit is a complete \ ray generator operating a self rectifying Cooledge tube to capacity. Pre reading meter perfect insulation and over load circuit breaker in sures safety and dependable results under all conditions.

Note he is 181k to hem that the green y ham a like the let I make the TK Bay per to whe let let the green y canriy and it to the green y canriy and it to green the green canrid to green the green

or screte

THE KELIEY KOETT MANUFACTURING CO Inc C gt h t ky U S A Th \ Th \ R y Cdy

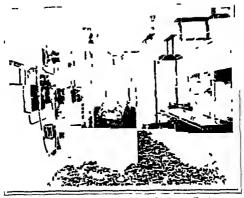


AT YOUR REQUEST-

W E WILL be very glad to send you a copy of our new publication. The Modern Science of Diathermy. This booklet is especially interesting because it represents the experiences of eight or nine of the best known authorities on the subject abstracted from their original articles. The theory of Diathermy as well as some of the numerous conditions in which Diathermy is in dicated is very fully explained. This method of compilation gives you the story of Diathermy in the Doctors own words and also presents a variety of ideas and applications. Just mail your request to Department D. East 30th and Superior Ave and we will be glad to mail your copy immediately

THE ENGELN ELECTRIC CO

Ray and Physiotherapy Equipment-CLEVELAND -- OHIO



XRay Laboratory fD A D Wilmack Lou a 1 Ky V ctor Eq pment Th oughout

Time and Use Reveal Victor Quality

As months and years pass the Victor \(\lambda \) Ray machine installed in the physician s office or in the special ed reentgenological bhoratory un failingly responds to the demands made upon it Day after day the same trustworthiness in operation the same certain results as in the beginning

Thus time and use reveal the quality pains takingly built into every Victor X Ray machine

The e smpl V tor X Ray makin who him the demand freneral p tee a dpowerful d guot deporter by approach for instances a dloratories. The same V ctor quarty; built to M.

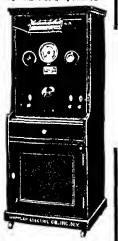
We shill be glidt gg tith type of V tor till: best I lid to mit this require ment of thing the migration and I practice this putal or nec I ed I boratory



ELECTROTHERMIC METHODS

IN THE TREATMENT OF NEOPLASMS AND OTHER LESIONS WITH CLINICAL AND HISTOLOGICAL OBSERVATIONS

The about the till mpot tin le united by Will L Clai MLD J D gl Morga M.D a d I ugene J Asnas M.D.



Lpon recept fou req t w shall be gld to se da reprit fthis article contain gall t t sa d tech q e and loa descripto f the apparatu sed

Please ment on this Jours at

WAPPLER ELECTRIC CO Inc. Course Off so and F tory Show K em LONG ISLAND CITY N Y 173 EAST 87th ST N Y CITY

The Specialist and The General Practitioner both find ESICo

> Lighted Surney Instruments

invaluable in diagnosis

Our compl et 18 h mport t n-Our complete of a moject conten must still m. ph yrigon pe Sil.
T. il m. t. J. k. Brochoscop
t. S. b. d. Koch Ureth oscopes
the Cyt. pe d. T. til. Lych. d. gSbd hCyt pe Rectlirm t

III m td Ly Sp d T gu D pre so

The deribed dilust ton the N th Edeo f

CII gu opy f h h dibe mailed po requ

T seen h brack low twenty-fix year feet length Med MP feet on mill you one of or the reacts to paid ESIC dank on ESIC dank Electro Surgical Instrument Co Rob t NY



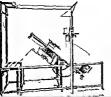
PERMAMENT 6000 6000

Genume Faithorn Case Records My be identified by the beaw term is Fei hirsh 426

THE FAITHORN COMPANY Printers and Publish rs

500 Sherman Street Cluc go

Several Hundred Dollars Will Be Saved



if you install

A MIILTOSCOPE

Instead of an ordinary Radio praphic fluoroscopic TABLE

Send for Our Latest Catalogue Describing

MULTOSCOPES

KLINOSCOPES

THE WM MEYER Manufacturers of X Ray and Elect o Med cal Apparatus

1648 NORTH GIRARD STREET

CHICAGO ILLINOIS

In Modern

Surgery

The Post Cautery

No Rheostats Etc Works on Alt or Dir Current Silver Knife Uniform Heat No Electrode Portable Compact

Dependable 3000 With Any ONE in

With No 5 \$32 50 Additional Instruments \$12 50 en Types 1 2 3-4

Note No 5 is flexible For Nose and Throat Used and Endorsed by Sur geons and Hospitals Everywhere

POST ELECTRIC CO., Inc.

& Size

C culs SQD325 On R ASK YOUR SUPPLY HOUSE FOR DEMONSTRATION OR WRITE

30 East 42nd St New York

KIELLAND OBSTETRIC FORCEPS



The fue present ad fin te ad antag i dlv ing bab who the h dish gh and when the occip t is in the ant no half f the pelys

ly ecomplished without da ger Bearretal male tron alw in man all

Al nula tu

Th y do not Ip beca se ther an equ ld trb t n fp essu all ver the kull The introd ction f th a ter or blad ccompl shede by and witho tid yer f la er tio a.

Thuser fth K llandf epsha speasedf or bl p on dth m jo ty f them declar then wn trum tob d finit dva in bite

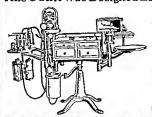
S ld by of Heh G de Su sicel In t um nt

CHARLES LENTZ & SONS Sin 1866

33 South 17th Street

PHILADELPHIA

This Outfit Was Designed Especially For YOU



It carries comp essed air suction and sceryth g elae need dor wanted by the Eye Ear Nose and Throat Sp tishet

Furthermore t carries all these conve lences and appliances ar ranged in j at the way you want them for your manner of working

And once you ha e the So nsen Advanced Profess onal Outfit in your office equipped and arrang d to a tyo then it is exactly as if it had been

> DESIGNED ESPECIALLY FOR YOU

My we mail you folder with bett r picture and unit prices?

M SORENSEN CO, Inc 444 king A

Makers also of

Sorensen Adjustable Lamps Sorensen Specialists Chairs and other of your needs

Baumanometer

"STANDARD FOR BLOODPRESSURE"

It's Confidence that counts—

your patients confidence in your your confidence in your instrument *** No more of those lingering doubts—you know you are right every time with a Baumanometer Approximations and inaccurate measurements have no place in modern practice

Pardon my cursosity Doctor but you know I am a consulting engineer and that seems to be a much more accurate instrument than some doctors use for bloodpressure Yes they ill squeeze the arm but the Baumanom eter as an a class by atself It's the acknowledged standard of the profession Desk Kit bag Pocker Wall and Cabinet Models of the New York and The Carried in stock by your dealer was Send in Send in 100 Fifth AV

KIELLAND OBSTETRIC FORCEPS



Their use p esents a definite ad antag indlivers gbb when the had high d whin the occput sin the ant half fth plus

Rtt nis sly cc mph hed with utd ger

Bearetal and tental an

has at

The user of the K lland f ceps h we pr sed f v sble pin nd t m ; ty f th m deci th new i trument to be d first d anc in obst t cs

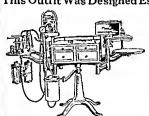
CHARLES LENTZ & SONS

S ne 1866 M nuf tu of H sh G d S g cal In t um nt

33 South 17th Street

PHILADELPHIA

This Outfit Was Designed Especially For YOU



It carnes comp essed air a c tion and everyth: g elss accd d or wanted by the Ey Ear Nos and Thro t Speci list

Furthermore it carries all these conv niences and appliances ar ranged in just the way you want them f r your manner of working

And once you ha e the Sor usen Advanced Profess onal Outfit in your office equipped and arranged to suit you then it is ractly as if it had been

DESIGNED

ESPECIALLY FOR YOU

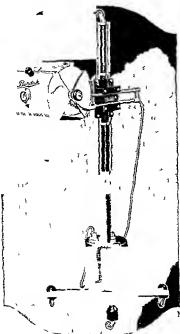
May we mail you f lde with better p cture and unit prices?

C M SORENSEN CO, Inc Long lei nd City N Y

Makers also of

Sorensen Specialists Chairs Sorensen Adjustabla Lamps and other of your needs

AFTER THE OPERATION



YOU may de stroy Bacteria you may shorten convalescence to a remarkable de gree by employ ing the Burdick Air and Water Cooled Quartz Lamp

Its tonie reconstructive and immunizing ef feets are clearly recognized and should be indispensible Send for Bulletins 30 and 35 on Quirtz Lamp Technique and Therapy

Burdick Cabinet Company

250 Vadi on Ave Mîlton Vi consin

The Light Way is the Right Way

Head Stethoscope for Hearing and Counting of Foetal Heart Sounds

Med frD Fed ikit Falls lows City I w



la g l way the thoscope is ml t the Hill and Delee Head St thoscope dembef in hed with stong loth b d ill t ted o with a fie bl fib b d

The mps ment o to fit f double p gimp findly the heat the metal for he delt to white a dypock twith my be ipped descond in dit bil fram be gitta hed behind the bell which the terms of the metal to be the heat of the metal to be the metal

Fo full d we pro and techniqu see Sept in Am c n Jo m bod Ob tet x a d Gynecology

V MUELLER & COMPANY

Ogden A nu Van Bu n nd Hono St ceta

CHICAGO ILL



Harold Standard Deep Therapy Lamp

\$12 50 Brings It

ONLY \$72 50 Less 10% for Cash

The benefits den ed from the employment of Light Thera

Alato the least t and h -

m atsure mad way from the Lump B (for / fl subbook on L hi Ther y

HAROLD SURGICAL CORP

G 1 in descripte sent theck for first p m D Presse ad C O D t for a ym U One type St i ad Dero Th Lamps Hip years a Lam

Non St sAddress
Car S t

for Complete Sterilization

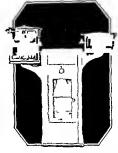


INDESTRUCTIBLE STERILIZERS

The Lincoln Model Unit No 1216 illustrated has instrument and dressing sten liters made entirely without solder for dry heat stenlization as well as boilring. The Cabinet has a removable porcelain top interior illumination and generous storage capacity. Fin shed in nine coats of backed, white enamel

\$157 Complete

See This Unit At Your Dealer s

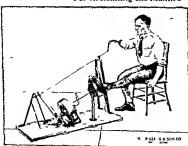


THE PELTON & CRANE COMPANY
632 HARPER AVENUE

DETROIT MICHIGAN

Pilling-Made Tait McKenzie Muscular Re-Educational Apparatus

For Reclaiming the Maimed



The apparatus for muscularse education and reclaiming the matmed hereinshown has been modified and improved by us under the guidance and supervision of R Tait Mckenzie M D late Major R A M C Professor of I hysical Therapy University of Pennsylvania

A tertigp mphlit Il tigib Mck nz Muelr R Edit nil Appritu will be mild

The George P Pilling & Son Co

[31]

SACRO ILIAC BELT



Made of strong moleskin cloth with a thick triangu lar pad pressing in the sa crum while the iliae bones are pulled back by lacing and straps Send eircum ference measure three inch

JEFFERSON SUPRA PUBIC APPARATUS



Price Complete \$20.00

COLOSTOMY APPARATUS



D va d b DR J COLES BRICK This appliance is used where an opening is made in the colon It consists of a specially shaped metal ring over which a rubber bag is placed to receive the contents This apparatus



for Complete Sterilization

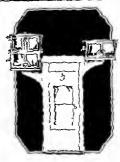


INDESTRUCTIBLE STERFLIZERS

The Lin oli Model Unix No saré illust atted has instrument and dressing steen luters made entirely without sidder lor dry heat stenti atton as well as boshing. The Cabinet has a tentovable portein a rop intentor illuminat on and generous storage capacity. Finished in sune coats of nathout write ename!

\$157 Complete

See This Unit At Your Dealer's



THE PELTON & CRANE COMPANY
61 HARPER AVENUE
DETROIT MICHIGAN

Pilling-Made Tait McKenzie Muscular Re-Educational Apparatus

For Reclaiming the Maimed



The apparatus for muscular re education and reclaiming the maimed hereinshown has been modified and improved by us under the guidance and supervision of R Tait McKenzie M D late Najor R.A M C Professor of Physical Therapy University of Pennsylvania

to tere tog pamolite
in tring the Vickenz
Vicula R Edical to J
hp rat will be mild
n quit

The George P Pilling & Son Co

Phil d lphi U.S.A

One standard of sharpness

RIGID inspection guarantees the razor sharpness of Bard Parker blades The blades are first sub-plected to the Hair Test which requires that each blade must cut a suspended hair

The blades then under go the Light Test by which a powerful light is directed on the cut ting edges If no light is reflected the width of the blade edge is less than 000004 of an inch In the razor in dustry these are considered the severest tests to which a cutting edge can be aubected

Therefore all the Bard Parker blades you may use at different times will have the same de gree of sharpness. You can use a new keen blade for each operation with economy. It costs less to ship a new Bard Parker blade on your handle than to re sharpen an ordinary kinife.

Handles—\$1 00 Blades per half dozen—75c Set No 103—One each No 3 and 4 handles one half dozen each 10 11 12 20 21 22 23 blades— \$9 00 Agents every

BARD PARKER COMPANY INC. 150 Lafayette Street New York NY.

P

n

No.4

UROLOGICAL INSTRUMENTS

In Rubber and Gum

Ureteral Catheters a Specialty

Ask Your Dealer Specifying Eynard

Ill to t d Ch ot on Request

C R BARD, Inc 37-39 E at 28th St eet N w York

HADE STORM THADE MARK REPAIR NO BINDER & Abdominal Supporter

nam Mut tr

Ret MTEE ENTRE

For Men, Women and Children

F Pt H man Pegn n y Obe ty RI dSa II Att It Floating Kall y High d Love Operation t

Akf 36-pa III ed Fold M I ed refilled | Philed | bu fy-

Hatherine L Storm, M D

Origi for P fee Own 4 Max

1701 Diamond Street Philadelphia



Surgical Dressings

B tt r ult and fewer inf cti ns a e e ne

Stand off (leegh) Ro 43d 4100
Stand off vy (d bleegh) p 4yd 250
Species es nd p ce i rhospital

Student Petric (d bloom by) 41 15

At All Supply House

Smpl Rq 1

THE CILKLOID COMPANY
MARSHALLTOWN IOWA

Seven Section Skull

Disclosing everything f are e to th Ey Ear Nose and Th out spe cial t and to the C an 1 urgeon



T its nates sinuses and septum redisclosed by the section in the median plane. The e t wa walls of both the mould re

مان بن بن الله

E B MEYROWITZ SURGICAL INSTRUMENTS CO



All Jes th A A U Cr Serluze 13

More economical to own

because-

You need not buy it twice

As one owner writes. After so many years of service our AMERICAN Sterilizers are as young as ever

AMERICAN Sterilizers have always been entirely out of the two-or three year class. Some of them are giving excellent results today after constant service for 18 years.

The Wirst I rhn boelk all other Acc St I subble for by b d ppe the elitograph the Ayuk wither pt lly detector of by the met I wild elivery.

Outlogd be th WerStelz doth t fthe As A Lan Wrte f CtlgS23F

AMERICAN STERILIZER CO

Es ra Sal Offi 200 Fif hA Nw 1 & C.

Amfrican <u>Steriliz</u>ers

] Little

One standard of sharpness

RIGID inspection guarantees the razor sharpness of Bard Parker blades The blades are first subjected to the Hair Test which requires that each blade must cut a suspended hair

The blades then under go the Light Test by which a powerful light is directed on the cut ting edges It no light is reflected the width of the blade edge is less than 00000 of an inch. In the razor in dustry these are considered the severest tests to which a cutting edge can be subjected.

Therefore all the Bard Packer blades you may use at different times will have the same de gree of sharpness. You can use a new keen blade for each operation with economy. It costs less to slip a new Bard Parker blade on your handle than to re sharpen an ordinary tents.

Handles—\$1 00 Blades per half dozen—75c Set No 103—One each No 3 and 4 handles one half dozen each 10 11 12 20 21 22 23 blades— \$9 00 Agents every where

BARD PARKER COMPANY INC. 150 Lafayette Street New York NY.

K)

Na. 4

UROLOGICAL INSTRUMENTS

In Rubber and Gum

Ureteral Catheters a Specialty

Ask Your Dealer Specifying Eynard

Illustr ted Ch rt on Request

C R BARD Inc 37-39 E at 25th St eet New York

Binder & Abdominal Supporter



TRADE Ware R 1

For Men Women and Children

RIedSa o-licAt it Fing Kd y High d Low Ope t t Anki Mopa iii edfide Mid ede filled Philad ib aly-

Katherine L Storm M D

1701 Diamond Street Philadelphia

Waterproof SURGE

Florible

Easy for Patient

of Antiseptic

Surgeon's adhesive

Non irritating

Far Superior to

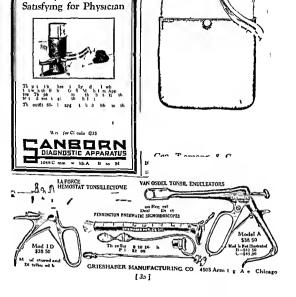
A LIQUID ADHESIVE

For Attaching Surgical Dressings to the Skin Does not evaporate rapidly from the bottle Buy Through Your Dealer



DUO LABORATORIES Inc.

NEW BRUNSWICK NEW JERSEY



Improved Payr Stomach Resection Clamp



HAND FORGED

Blade, 6 Inches

Length Over All, 14 Inches

Price \$25 00

SHARP & SMITH

General Surgical Supplies

65 E Lake Street Between Wab ah A and M higan Blvd CHICAGO ILL

Smith Bone Clamps For Operative Fractures



N S eve A Used
The eclamps supply a
wat hon su kern a
m thy an the lamp
or d ke Th ne
a slyappieda dqu k
l eem d r que a
screws and th g s
dri en into the bone

Afor Fook! (

Gelpi's Perineal Retractor with LOLTITE



Fred Haslam & Co B klyn N Y

"VIM" Standess Steel Needles for Your Dunn Local Anaesthesia Outfit



[34]

Waterproof

Antiseptic

SURGEON'S ADHESIVE



Non irritating

Superio to Collodi n

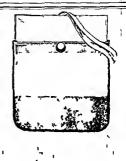
A LIQUID ADHESIVE

For Attaching Surgical Dressings to the Skin Does not evaporate rapidly from the bottle Buy Through Your Dealer

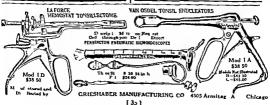


NEW BRUNSWICK, NEW JERSEY





Geo Tiemann & Company
7 E 28th Street New York N 1
The Origin of Old Time State of H



The New Method of Blood Transfusion

So simplified that this operation now becomes one of minor procedure

A associated with the transfusion of blood have been eliminated in the new method p riected by Dr Harry knotter of Brooklyn, N Y Its simplicity and effectiveness recommend it to every practitioner.

HE difficulties hitherto

By this new method 1000 c. c. a c transfered in less than eight minutes no blood is lost the operation is not subject t mer takes and reaction ado not on ur

The d tailed ad antages of this apparatus are contained in a paper read by Dr. An ter before ne of the Medical Issuer tions. Send or a copy using the coupon which a printed for your convenients.

have a model to a pe the appa atus of you see a sure col supply dealer

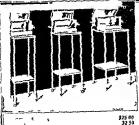
Manufactu ed by

J SKLAR MANUFACTURING CO

DELIGIFLOYD ST BROOK

BROOKLYN N Y Dealer S

Name



ELECTRIC STERILIZERS

Targe Sizes

 \mathbf{B}^{-1}

service ad ni ch san be repliced uniter

She berd see we built with I ary copper bott in which is to see a being and will set believe her would as The cois liked by a in plated handle the side help also eleve to the act on the yby mans of mewite 11th gd use

Sterilizer Stands

W Ite for East Term

28 50



The New Method of Blood Transfusion

So simplified that this operation now becomes one of minor procedure

THE difficulties hitherto associated with the transfusion of blood have been eliminated in the new method perfected by Dr Harry koster of Brooklyn N Y Its simplicity and effectiveness recommend it to every practitioner.

By this new method 1000 c c a eminutes no blood i lost the operation is n t bject t m takes and re ct ned n toccu.

The d tailed ad tag a f th

The d tailed ad tag s f th apparatus are to te ed t paperrad by Dr. A te bef to Send f ac py our g the com which s priced f

your convenience

You and to pectil supp t ratyon gil

J SKLAR MANUFACTURING CO

133-143 FLOYD ST

BROOKLYN N Y 5.3

.

Address S npeal a ply Dealer N m



9SG3035—10 4½ 4 St J 110 hs 9SG3035—17 7 5 St 1zc 110 elt 32 59 9SG3037—15 ½ 5 St 1zc 110 elt 5 5 pc 1 Steel Sta d'fr y fabo St 1 ra 8 50

15 f for Easy Terms

ELECTRIC STERILIZERS

All t lizers b it with heavy coppe bott m which nave n he t g d will n tb kle under yee dit. The co s lafted by lated ha di tithe d h h loo el to the unt m t tray by mn fanewike tilft gd ce

Sterilizer Stands

For each to taken ber pecial tand to ted f cell than od by ogic ir o. branch ar equipped with liab bill f to dicer and the list of the lis



GORGAS MEMORIAL



A Foundation Controlled by the Practitioners of Curative Medicine

OF DIRECTORS

OBH CT To unprove health and prolong life by developing co-operation between the public and scientific medicine

VILLIOD By means of a comprehensive national publicity program to cultivate a public opinion which will recognize in scientific medicine the source of rehable information and the final authority in all matters pertaining to health

Encourage frequent physical examination of the individual by the family physician Poster research in tropical and preventive medicine

ORCANIZATION STATE COVERNING COMMITTEES 75% of whose person nel are progre sine medical men and 25% influential laymen and women will direct this but beaith movement

A FOUNDER MEMBER OF YOUR BECOM STATE GOVERNING COMMITTIE NOW and particuate actively in its development

GORGAS MEMORIAL

INSTITUTE OF TROPICAL AND PREVENTIVE MEDICINE

I I work I Ge al William Cra I rd C g s A Se unt I W k d

	3			d		
t	Fu	ď	payme	ts	ŧ	

\da				
	M # 1 pecks balan	Oprges M m (s) Sumit 410 N high A	Inc Occept M R ya lds T eas A	Chleage, I



THEY RE SUPERIOR TO HORSEHAIR NOTE THESE ADVANTAGES!

Bauer & Black Dermal and Tension Su tures are pure silk threads carefully soun from selected silk fibres and finished with a water soluble varnish of gelatinous char acter They are superior to horsehair

Being treated with pyoktanin they are eas ily seen. At the same time they become slightly antiseptic.

And too they are uniform, smooth and phable

Of course Bauer & Black see to it that

they are absolutely sterile And they have non irritating and non-absorbable qualities

They have too greater tensile strength.

Lengths from 20 to 200 mches. In tubes with or without needles, or in small envel opes There are three siles of each type fine, medium and coarse

Bauer & Black endorse them Great care is given their preparation - bacteriological tests being made on first steriliation Final sterilitation is made after sealing



auer



GORGAS MEMORIAL



DEFICERS

D OF DIRECTORS

A Foundation Controlled by the

Practitioners of Curative Medicine

OBJECT To improve health and prolong life by developing co-operation between the public and scientific medicine

MUTHOD By means of a comprehensive national publicity program to cultivate a public opinion which will recognize in seientific mechane the source of reliable information and the final authority in all matters pertaining to health

Facourage frequent physical examination of the individual by the family physician I oster research in tropical and presentice medicine

ORCANIZATION STATE COVERNING COMMITTEES 75% of whose person nel nre progressive medical men and 00% influential laymen and women will direct this big health movement

BECOME A TOUNDER MEMBER OF YOUR STATE COVERNING COMMITTEE NOW and i articipate actively in its development

GORGAS MEMORIAL

INSTITUTE OF TROPICAL AND PREVENTIVE MEDICINE

be m d	3f II
Sgnature	
	k cokep yabl h C es M m to I tut line George I Reyn d Tree per Chicago, I



An Invitation to Physicians

PHYSICIANS is good standing are cordially invited to for observation and study or for rest and treatment Special chines for visiting physicians are conducted in connection with the Hospital Dispensary and various laboratories

Physician a good stand up re be y welcom gue to decommodations for those who d' so con k a pol gard tay re furn hid at a mod rate rate. N he ge mad to phys ana for regul mod cal xim in the time of Speil late of them to did calatted to re loog grid dipe dit numbers fith physicians of mily

An illustrated book it tell gof if Ong Purpose and Mithod of the instite n, a copy
if the rect MIDICAL BULLETIN no enait firs will be set free
upon reque;

THE BATTLE CREEK SANITARIUM



SUPPORTS for Post Operative application Abdominal and Sacro Iliac belts are pre scribed by surgeons in many countries for two reasons

First the company offering these appliances has studied conditions requiring supports under the direction of well known surgeons for more than fifteen years

Second the results of the study are incorpor ated in designs which produce results as indicated by X. Ray photographs and case records

For complete information address the general offices of S H CAMP & COMPANY in JACKSON MICHIGAN U S A., or our headquarters in principal cities

INTERNATIONAL CLINIC

Class A-Oto-Rhino-Laryngology Began January 15 Class B-Facio-Maxillary Surgery

St Louis Hospital, Paris, France, January 15 to June 30, 1925

A thoroughly organized and comprehensive course in Diseases of Throat and Plastic Surgery of the Face and Neck

Director
Dr Frenand Lemaitre, Paus
Associates
Mr. Harold D Gillies Lo don
J Eastman Sherenan M D New Y it
Frees Swiffe. M D Grand Rapids

Invited Professors

SIR ST CLAIR TROWFOON Lo don

CORNELIES COARLET MI D. New York

CHEVALIER JACKSON MI D. Falladelphu

GREENFIRED STUDER M.D. St. LOUIS

GROECE E. SHAMRAGUE, M.D. Chicago

With the Chiefs of Service of the Paris Hospitals and nine leading specialists of Paris. The service s of the directors and minied professors are given gratis.

Applications are now being received

The Fe ar : For Course A (Oto-Rhino-Laryngol gr) \$350 00 f e course B (Facio-Maiill ry Sur grey) \$250 00 f rangements are being in d f r vis is 1 American at deats to oth r in deal ce ters Fra ced of th Taste h 1d ys

F capy ith Bill tin dany theri I m ti A

DR J EASTMAN SHEEHAN 636 Fifth Are N w Y & City

Petrolagar.



ON PRESCRIPTION ONLY

SF Petrologia on pre cription. It is not describle to tell the patients the name of the product and adia to them to but the other than the total to the medication and to alraw the patient away from your influence.

Tetrologit is your mot u cful adjunct in the treatment of con tipation. A regimen of correct diet exercise etc. I also industed

Only by keeping the pitient under your in fluence can you effect a cure. This is the reason why advertised medicaments of any kind are obmission.

Petrelagar i sour product Dacir in the same as if it were comp unded in the pharmacs to sour pecual pre riptin. It is sthered in every on e.

It is no emulation to the first mineral oil with sear-agir. No terminative gum are used

PETROLAGAR i le d follow PET ROLAGAR (Pl in); PETROLAGAR (with Ph nolphth i in); PETROLAGAR (Alk lin) nd PETROLAGAR (Un w t n d no ug)

PETROLAGAR h b n are pted fo N w und Non Offi i iR n edi by ti Coun ii on ph m ey and Ch mil ty of ti An i n Mil 1A oci tion

Wit to intre ting t tise on ti ply i closy of the bow I entitled II bit Time Young to a copy! without of light in

DESHELL LABORATORIES Inc

LOS ANGELES CAL.

BROOKLYN N Y

CHICAGO ILL



For the child

who says "No"

When you say "Eat Cereals'

THE children who wo t at cereals when se v d in the usu I hea ty form change th ir minds when it y a c offered Quaker Puffed Wheat and Puffed Rice

Little folks done real so the theyre setting g : food—they the he they are being teat d to confe t no Every grant kernel s a nutty bubble—c s & to

this is the way to k ep them h ppy be to een meals without upsetting d gestions

Grown people I've Puffed Grains They are auch a welcome change from ro to to food O dered for u ch thy insure afternoon efficiency E ten as a bedume aupper they help tred brain vorke's also

Q aker P ff d Grains are just the finest quality grains grown steam e ploded to eight times normal siz. This process breaks up every food cell making it so easily digested and assimilated that nutre tive value is increased.

Two escl sive products which beat the Quaker trade-mark. As every physicia a d d tician knows this stands for supr m qual ty





BOLEN Supporters

and Binders
Fost Oper ti e
Sa o Ili Stra
M t mity

G stropt is
Hernia
W / / Li / re
Bolen Manufacturing Co





CASH For Back Numbers

Surgical Publishing Company of Chicago

54 Fast Fel Street

CHICAGO



The Superior Neoarsphenamine

In Can ni at 10-Ampule P k ge with Di tilled W te

D R I. NEOARSPHENAMINE Is constantly being improved

and is always subjected to the most painstaking standardization tests

The margin of safety a well a the ther peut c efficiency f the reliable product his for yors been the source of scientific tudy in the Derm t log cal Rese ch Labor torses

Today the D R L | bel on Neographen min is your guarantee n tonly of th highest a 1 ty but also the gr test efficiency in th treatment f syph llis The tolerance te t t ade with D R L Neo phen m n ar f rhevond government equ ement and the chim ther peut cide i proof of ta effect encss

> F S f tv Fi t 40 litr Alon (it tipo your dealer or ding yo

D R I NEGARSPHENAMINE



THE DERMATOLOGICAL RESEARCH LABORATORIES 1720 Lombard Str. t Phil d lphi

THE ARROTT LABORATORIES 4753 R venswood A e Chic e

La A e l



our new message to you, doctor

-the convenience of serving QUICK QUAKER

TE han thigh till y u abo this fond walue of out, fy kwisawellasw d ME CON th en f serv g Q ck Quak -th ooks in 3 to 5 m nutes!

Q k Quak bl g to b y m thers, thy il thanky f t il g th m abo t L It mean children tart get hool and men go g tow het fid df thed by th id lf df i It h lp w mend th be tf th faml s, whi m k or th task les hard.

> Standard full size and wei he packages-Moduem 1K pounds; La 3 pounds, 7 az.



